STATE OF NEW HAMPSHIRE

TRAUMA MEDICAL REVIEW COMMITTEE

NEW HAMPSHIRE TRAUMA DATA STANDARD: DATA DICTIONARY | 2018

APPROVED: DECEMBER 2017

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Introduction:

The New Hampshire Trauma Data Standard (NHTDS) represents the culmination of many years of work by the all-volunteer Trauma Medical Review Committee (TRMC). Together with the New Hampshire Bureau of Emergency Medical Services, the TRMC is responsible for the administration of the State of New Hampshire Trauma System. The NHTDS and the New Hampshire Trauma Registry (NHTR) are the hallmarks of the collaborative trauma system improvement and high patient care standards for which the TRMC stands. This Data Dictionary is designed to be a resource for trauma registrars and trauma program managers who submit data to the NHTR directly or by digital upload.

The NHTDS and this Data Dictionary are designed as a companion to the National Trauma Data Standard (NTDS) which is published by the American College of Surgeons. The NHTDS collects all of the required elements listed in the National Trauma Data Bank (NTDB) plus many additional items which the TMRC believes are necessary to Trauma System Improvement in the State of New Hampshire. NTDS standards and data dictionary can be found at: https://www.facs.org/quality-programs/trauma/ntdb/ntds/about-ntds .

Field Values:

All required fields must be non-blank. This can be accomplished by either entering a Common Null Value (CNV) or a Real Value (RV). Some required fields accept "Not Known/Reported" but do not accept "Not Applicable (N/A)". Optional fields for direct data entry agencies *may* allow a "blank" however; all effort should be made to enter a RV or CNV in these fields.

Required Fields:

In the NHTDS, required fields are those fields which are required by the NTDS and/or those fields which the TMRC deemed necessary for statewide trauma system improvement. Failure to complete these fields will result in a validation score less than 100% for those organizations that directly enter data into the NHTR, and record rejection for those agencies that digitally upload data into the NHTR. Required Fields are highlighted in purple on each individual data element page. Fields that are not designated as required are not collected from all agencies, but remain active for those agencies that directly enter data into the NHTR as their only trauma registry.

Suggested Data Source Hierarchy:

With the exception of EMS specific fields, The New Hampshire Bureau of EMS and TMRC recommend the following Data Source Hierarchy:

- Face Sheet/Billing Sheet
- Admission Form
- Triage/Trauma Flow Sheet
- History & Physical
- Case Management/Social Services Notes
- Lab Results
- Pharmacy Records
- EMS Run Report

REPORTING REQUIREMENTS:

Reporting Overview:

All designated trauma centers within the New Hampshire Trauma System are required to submit data to the NHTR. This can be accomplished in two ways:

1. Direct Data entry into the NHTR by trauma registrars

2. Digital Upload (data dumping) by hospital registry software into the NHTR

The NHTR is built by ImageTrend, and maintained by New Hampshire Bureau of EMS staff. All questions or issues regarding NHTR access and data entry should be directed to: **Gerard Christian**, Clinical Systems Program Coordinator: 603-223-4200 | trauma@dos.nh.gov

Patient & Reporting Agency Confidentiality:

The TRMC and New Hampshire Bureau of EMS recognize the concerns for patient confidentiality that Hospital administrators and risk managers have, particularly regarding the reporting of patient names and dates of birth. The collection of this data by the Bureau of EMS and the maintenance of patient confidentiality are addressed in State Law.

RSA 21-P:12-b(g) Regarding Bureau of EMS Authority:

"Establish a data collection and analysis capability that provides for the evaluation of the emergency medical and trauma services system and for modifications to the system based on identified gaps and shortfalls in the delivery of emergency medical and trauma services. The data and resulting analysis shall be provided to the bodies established under this chapter, provided that such use does not violate the confidentiality of recipients of emergency medical care. The provisions of RSA 126 shall be followed with regard to other uses of this data for research and evaluation purposes, and for protecting the confidentiality of data in those uses. All analyses shall be public documents, provided that the identity of the recipients of emergency medical care are protected from disclosure either directly or indirectly".

RSA 126:24-b,c,d Regarding Collection, Use, & Protection of Confidential Patient Data:

"The bureau of health statistics and data management within the department is designated the health statistics center of New Hampshire in accordance with Public Law 95-623 section V(c)(1). The bureau is authorized to coordinate and disseminate health-related information for the purposes of protecting public health while adhering to privacy requirements. In carrying out its

duties, the department shall use the minimum amount of information that is reasonably necessary to protect the health of the public. The department shall have a direct and tangible interest in vital records data including personal identifiers. The secretary of state shall provide continuous electronic access to the department of the entire contents of the data files on a 24-hour, 7-day per week basis. If a means of electronic access becomes possible that will allow access at a faster rate, the department may utilize such new means of access, provided that it assumes the full cost of implementing the new means of access. Such access shall be provided in standard database format that establishes a remote electronic link from the secretary of state's office to the department that would not restrict the ability of the department to transfer data. However, under no circumstance shall any information relative to any adoption or any restricted record as determined by a court of law be provided to the department. All protected health information possessed by the department shall be considered confidential, except that the commissioner shall be authorized to provide vital record information to institutions and individuals both within and outside of the department who demonstrate a need for such information for the purpose of conducting health-related research. Any such release shall be conditioned upon the understanding that once the health-related research is complete that all information provided will be returned to the department or destroyed. All releases of information shall be consistent with the federal Health Insurance Portability and Accountability Act of 1996, Public Law 104-191 (HIPAA) and regulations promulgated thereunder by the United States Department of Health and Human Services (45 C.F.R. Part 160 and Part 164). This shall include the requirement that all proposed releases of vital records information to institutions and individuals both within and outside the department for the purposes of health-related research be reviewed and approved by the board, under RSA 126:24-e, before the requested information is released".

RSA 153-A:4 II, VI, VII Regarding the TRMC's Authority:

"Routinely assess the delivery of emergency medical services, based on information and data provided by the department and from other sources the board deems appropriate, with particular attention to the quality and availability of care. Approve statewide trauma policies, procedures, and protocols of the statewide trauma system and the establishment of minimum standards for system performance and patient care proposed by the commissioner prior to their adoption under RSA 541-A. Coordinate interstate cooperation and delivery of emergency medical and trauma services".

The TMRC and New Hampshire Bureau of EMS also recognize the additional concerns of those facilities that enter data into the NHTR as their only trauma registry regarding the confidentiality of their Process Improvement, Peer Review, and TQIP data. Unless given permission from a Reporting Agency when requesting assistance for technical support, State NHTR administrators do not have access to view or utilize this data in any way. Additionally, none of the reports that State NHTR administrators can run include this data. The interests of the TMRC and the Bureau of EMS lie in the collection of data for statewide Trauma System Improvement, not for auditing reporting agency performance.

Inclusion Criteria:

To ensure the consistency of data submitted from hospitals across the State of New Hampshire, patients that meet the following parameters shall be considered a "trauma patient" and therefore included in the NHTR:

1. Patients who present to acute care with complaint of Traumatic Injury _**AND:**_

2. Meet inclusion criteria as defined by the ACS NTDS Data Dictionary (see ACS 2017 page iv) _**AND:**_

3. Present to acute care within twenty-one (21) days from date of injury ***AND:***

4. Were admitted to ANY inpatient unit, including the Operating room and patients held in the Emergency Department at times of patient surge

National Trauma Data Standard Inclusion Criteria

Did the patient sustain one or more traumatic injuries? — No

Yes

Is the diagnostic code for any injury included in the following range; ICD-10-CM: S00-S99, T07, T14, T20-T28, T30-T32 and T79.A1-T79.A9? — No

Yes

Did the patient sustain at least one injury with a diagnostic code outside the range of codes listed below?

S00, S10, S20, S30, S40, S50, S60, S70, S80, S90 — No

Yes

Did injury result in death? **OR** Was the patient transferred to (or from) your hospital via another hospital using EMS or air ambulance? **OR** Was the patient considered an admission based on your trauma registry inclusion criteria? — No — For **ALL** three

Yes

Patient **INCLUDED** in the National Trauma Data Standard

Patient **NOT INCLUDED** in the National Trauma Data Standard

Data Submission Details:

Data Submission Timeframe:

> The TMRC and New Hampshire Bureau of EMS have no formal timeframe for the submission of data to the NHTR. However, it is recommended that data be submitted at least quarterly as utilized by ACS for data submission to NTDB.

Data Verification for Agencies that directly enter data to the NHTR:

> From within the Incident Report Form: Validation scores can be found under the wrench icon in the tool bar on the far right of the screen. Within this screen Registrars can see a description of the validation error messages (See photo left)
>
> From the main "Incidents" tab screen: Validation scores are found in the far left column for each report (See photo right)

Data Verification for Agencies that digitally upload data to the NHTR:

> It is the expectation of the TMRC and the New Hampshire Bureau of EMS that agencies that choose to maintain their own trauma patient registries shall ensure data accuracy and completeness prior to submission to the NHTR.

NHTR Incident Report Form Types:

Trauma Short Form (ICD-10)

> The trauma short form satisfies the minimum NTDB requirements. It is ideal for Level IV facilities and those facilities beginning the data entry process.

Trauma Incident Form (ICD-10)

> The standard trauma incident form satisfies all NTDB requirements and is ideal for any non-TQIP facility. This Data Dictionary follows the layout of this form.

Trauma + TQIP (ICD-10)

> The Trauma + TQIP form is the standard form for any Level I or II facility and any facility who wishes to closely monitor process improvement.

USEFUL TERMS & DEFINITIONS:

American College of Surgeons (ACS): A scientific and educational association of surgeons that was founded in 1913 to improve the quality of care for the surgical patient by setting high standards for surgical education and practice. Through its Committee on Trauma, works to improve the care of injured and critically ill patients–before, en route to, and during hospitalization. Works to encourage hospitals to upgrade their trauma care capabilities and maintains a voluntary verification/consultation program for trauma centers.

Common Null Value (CNV): A place holder used to signify missing or unknown values (e.g. Not Applicable (N/A) or Not Known/Recorded)

Data Dictionary: A document which describes the process of data entry into a data registry. Also, a document which collects and defines a registry's Data Elements

Data Element: Any unit of data defined for processing. (e.g. Patient Name, Injury Type, Diagnosis ICD-10 Code)

Data Entry: The way in which Real Values (RV) are entered into a data element field (e.g. Multi Select, Single Select, Yes/No, Date, Time, Date/Time, Free Text)

Data Format: The specific type of Real Value (RV) that the field requires (e.g. String (text), Integer (numbers), Date, Time)

Field Constraints: Limitations or Restrictions placed on a field (e.g. Invalid data format, too many or too few characters in a text field, assessment score does not equal appropriate range)

Field Values: The expected values for a given field (e.g. the date of a procedure in the correct format or other specific values as outlined in NTDS)

National Trauma Data Bank (NTDB): The nationwide, standardized registry of all trauma patients cared for at certified trauma centers in the United States. Administered and maintained by the American College of Surgeons (ACS).

National Trauma Data Standard (NTDS): A collection of all data elements and values which are required for inclusion into the National Trauma Data Bank (NTDB).

New Hampshire Bureau of Emergency Medical Services: A Branch of the Division of Fire Standards and Training and Emergency Medical Services; The agency responsible for the administration of the State of New Hampshire's Emergency Medical Services System. Authority granted under RSA 21-P:12-b

New Hampshire Trauma Data Standard (NHTDS): A collection of all data elements and values which are required for inclusion into the New Hampshire Trauma Registry (NHTR). The minimum NHTDS elements are required by the National Trauma Data Standard (NTDS) and/or the New Hampshire Trauma Medical Review Committee.

New Hampshire Trauma Medical Review Committee (TRMC): An all-volunteer State committee which is responsible for the administration of the State's Trauma System. Authority granted under RSA 153-A:8

New Hampshire Trauma Registry (NHTR): A standardized databank for all trauma patients cared for at certified trauma centers in New Hampshire

Real Value (RV): The information that the data element is looking for (e.g. date, weight, GCS score, ICD-10 Code, Patient Name). Any data that is _not_ a CNV

Record Occurrence: Describes if a field must be filled in, and how many times in which it may be filled in. Expressed as a ratio where the first number denotes if the field is mandatory and the second number denotes if the field may be completed more than once. (e.g.0:1 = not mandatory & may be filled out only once. 1: Many = mandatory and may be filled out many times)

DATA ELEMENTS:

Sample Data Element Page

The NHTDS Element Name and Number will appear here	
NTDS Name/Number:	The NTDS Name/Number will appear here
NTDS Required:	Yes | No
NHTDS Required:	Yes | No
Data Format:	Format of RV accepted
Record Occurrence:	If the field must and How many times field can be completed
Data Entry:	How RV is entered in the field
Accepts CNV:	Yes | No
Accepts "Blank":	Yes | No
Field Values:	Expected RV for field, Specific values may be broken out below
Field Constraints:	Limits to RVs accepted

Notes:

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DEMOGRAPHIC INFORMATION

Patient First Name

TR1_8 Patient's First Name	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Text of patient's first name
Field Constraints:	Max 25 Characters

Notes:

Patient Last Name

TR1_9 Patient's Last Name	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Text of patient's last name
Field Constraints:	Max 50 Characters

Notes:

Date of Birth

TR1_7 Date of Birth	
NTDS Name/Number:	D_07 Date of Birth
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer | YYYY-MM-DD
Record Occurrence:	1:1
Data Entry:	Date
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Patient Date of Birth
Field Constraints:	Date out of range | DOB is later than: EMS dispatch date, EMS arrival date, EMS departure date, injury date, ED discharge date or hospital discharge date | DOB + 120 years must be less than injury date | Field cannot be N/A

Notes:
- Field used to calculate patient age in minutes, hours, days, months or years
- If date of birth "Not Know/Recorded" you must manually complete the Age and Age Units fields
- If date of birth equals injury date, you must manually complete the Age and age units fields as date and time of injury likely occurs before birth

Age

TR1_12 Age	
NTDS Name/Number:	D_08 Age
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Patient age at time of injury
Field Constraints:	Age out of valid range 0-120	Field must be N/A when Age Units is N/A	Field must be Not Known/Recorded when Age Units is Not Known/Recorded

Notes:
- Field used to calculate patient age in minutes, hours, days, months or years
- If date of birth "Not Know/Recorded" you must manually complete the Age and Age Units fields
- If date of birth equals injury date, you must manually complete the Age and age units fields as date and time of injury likely occurs before birth
- If age completed manually, age units must also be completed manually

Age Units

TR1_14 Age Units	
NTDS Name/Number:	D_09 Age Units
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See Specific Values Below
Field Constraints:	Value entered is not a valid menu option | Field must be N/A when Age is N/A | Field must be Not Known/Reported when age is Not known/Reported

Field Values:
1. Hours
2. Days
3. Months
4. Years
5. Minutes

Notes:
- Field used to calculate patient age in minutes, hours, days, months or years
- If date of birth "Not Know/Recorded" you must manually complete the Age and Age Units fields
- If date of birth equals injury date, you must manually complete the Age and age units fields as date and time of injury likely occurs before birth
- If age units completed manually, Age must also be completed manually

Race

TR1_16 Race	
NTDS Name/Number:	D_10 Race
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:Many
Data Entry:	Multi-Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See Specific Values Below	Check all that apply
Field Constraints:	Value entered is not a valid menu option	For US residents the field cannot be N/A	For non US residents the field must be N/A

Field Values:
1. Asian
2. Native Hawaiian or Other Pacific Islander
3. Other Race
4. American Indian
5. Black or African American
6. White

Notes:
- Completion of this field is based on self-reporting or as identified by family member
- Field values based on the 2010 US Census Bureau

Ethnicity

TR1_17 Ethnicity	
NTDS Name/Number:	D_11 Ethnicity
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single-Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See Specific Values Below
Field Constraints:	Value entered is not a valid menu option | For US residents the field cannot be N/A | For non US residents the field must be N/A

Field Values:
1. Hispanic or Latino
2. Not Hispanic or Latino

Notes:
- Completion of this field is based on self-reporting or as identified by family member
- Field values based on the 2010 US Census Bureau

Gender

TR1_15 Gender	
NTDS Name/Number:	D_12 Sex
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single-Select
Accepts CNV:	No
Accepts "Blank":	No
Field Values:	See Specific Values Below
Field Constraints:	Value entered is not a valid menu option

Field Values:
1. Male
2. Female

Notes:
- Patients who have undergone surgical and/or hormonal gender reassignment are coded using their current assignment

Patient Home Address

TR1_18 Patient Primary Address	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See Example Below
Field Constraints:	Max 100 Characters

Field Values:
- 123 Fake Street (Avenue, Boulevard, Circle, Drive, Place, Terrace, Way) Apartment (Building, Suite, Unit) 4

Notes:
- Street address of the patient's Primary Residence

Patient Home Zip Code

TR1_20 Zip Code	
NTDS Name/Number:	D_01 Patient's home zip code
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer | 5 or 9 digit for US and CA
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Pt home zip code
Field Constraints:	Value entered is invalid

Notes:
- Field is used to populate patient home State, County, and City
- If field is N/A manually complete Alternate Home Residence
- If field is Not Known/Recorded manually complete patient home country, and for US Residents manually complete patient home state, county, city
- If zip code is reported, patient home country must also be reported

Patient Home Country

TR1_19 Country	
NTDS Name/Number:	D_02 Patient's home country
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String | Two Character Country Code
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Code for pt's home country (e.g. US for United States)
Field Constraints:	Value entered is invalid | Field cannot be N/A | Field Cannot be Not Known/Recorded when home zip code is N/A or Not Known/Recorded

Field Values:
- Two Character FIPS codes representing country patient resides in

Notes:
- If patient's home country is not US, then home state, county, and city must be N/A

Patient Home State

TR1_23 State	
NTDS Name/Number:	D_03 Patient's home state
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String	Two Character State Code
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Code for pt's home state (e.g. NH for New Hampshire)
Field Constraints:	Value entered is invalid	Field cannot be N/A (US residents)	Field must be N/A (non US residents)

Field Values:
- Two Character FIPS codes representing state patient resides in

Notes:
- Field is only completed manually when home zip code is Not Known/Recorded and country is US
- Field used to calculate FIPS code

Patient Home County

TR1_22 County	
NTDS Name/Number:	D_04 Patient's home county
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String	Three Character County Code
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Code for pt's home county
Field Constraints:	Value entered is invalid	Field cannot be N/A (US residents)	Field must be N/A (non US residents)

Field Values:
- Three Character FIPS codes representing county patient resides in

Notes:
- Field is only completed manually when home zip code is Not Known/Recorded and home country is US
- Field used to calculate FIPS code

Patient Home City

TR1_21 City	
NTDS Name/Number:	D_05 Patient's home city
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String	Five Character City Code
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Code for pt's home city, township, or village
Field Constraints:	Value entered is invalid	Field cannot be N/A (US residents)	Field must be N/A (non US residents)

Field Values:
- Five Character FIPS codes representing city patient resides in

Notes:
- Field is only completed manually when home zip code is Not Known/Recorded and home country is US
- Field used to calculate FIPS code

Alternate Home Residence

TR1_13 Alternate Home Residence	
NTDS Name/Number:	D_06 Alternate Home Residence
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option | Field is N/A if zip code entered

Field Values:
1. Homeless
2. Undocumented Citizen
3. Migrant Worker

Notes:
- Field is only completed manually when zip code is N/A
- Homeless: A person who lacks housing *OR* a person living in transitional housing *OR* a person living in a supervised public or private facility providing temporary living quarters
- Undocumented Citizen: A national of another country who has entered or stayed in another country without permission
- Migrant Worker: A person who temporarily leaves their principle place of residence within a country to accept seasonal employment in the same or different country

INJURY INFORMATION

Incident Date

TR5_1 Incident Date	
NTDS Name/Number:	I_01 Injury Incident Date
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer	YYYY-MM-DD
Record Occurrence:	1:1
Data Entry:	Date
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Date Injury Occurred
Field Constraints:	Date is not valid	Date out of range	Incident date is earlier than DOB	Incident date is later than EMS dispatch date, EMS arrival date, EMS departure date, ED discharge date or hospital discharge date	Field cannot be N/A

Notes:
- Estimates of date of injury should be based upon report by patient, witness, family or healthcare provider
- 9-1-1 call times/other proxy measures should not be used

Incident Time

TR5_18 Time	
NTDS Name/Number:	I_02 Injury Incident Time
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer | HH:MM 24-hour time
Record Occurrence:	1:1
Data Entry:	Time
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Time Injury Occurred
Field Constraints:	Time is not valid | Time out of range | Incident time is later than EMS dispatch time, EMS arrival time, EMS departure time, injury date, ED discharge time or hospital discharge time | Field cannot be N/A

Notes:
- Estimates of time of injury should be based upon report by patient, witness, family or healthcare provider
- 9-1-1 call times/other proxy measures should not be used

Trauma Registry Number

TR5_12 Incident Number	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	Yes
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	No
Accepts "Blank":	No
Field Values:	
Field Constraints:	Auto-populated based on the creation of an NHTR Incident Report

Notes:

Work Related

TR2_10 Work Related	
NTDS Name/Number:	I_03 Work Related
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Yes/No
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values | Enter whether the injury was work related
Field Constraints:	Value entered is not a valid menu option | Field cannot be N/A

Field Values:
1. Yes
2. No

Notes:
- If field is completed, then you must also complete the Patient's Occupational Industry Field and the Patient's Occupation Field.
- Field should be "Yes" even if patient's occupation is N/A or Not Known/Recorded
- Field should be "Yes" even if patient's occupational industry is N/A or Not Known/Recorded

Patient Occupational Industry

TR2_6 Patient Occupational Industry	
NTDS Name/Number:	I_04 Patient Occupational Industry
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values | The industry in which the patient works
Field Constraints:	Value entered is not a valid menu option

Field Values:
1. Finance, Insurance, & Real Estate
2. Manufacturing
3. Retail Trade
4. Transportation & Public Utilities
5. Agriculture, Forestry, & Fishing
6. Professional & Business Services
7. Educational & Health Services
8. Construction
9. Government
10. Natural Resources & Mining
11. Information Services
12. Wholesale Trade
13. Leisure & Hospitality
14. Other Services

Notes:
- If field is completed, then Work Related Field should be "Yes" and the Patient's Occupation Field should be completed.
- Field should be N/A if Work Related is "No"
- Field Values based on US Bureau of Labor Statistics Industry Classification

Patient Occupation

TR2_11 Patient Occupation	
NTDS Name/Number:	I_05 Patient Occupation
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values	The type of the patient's occupation
Field Constraints:	Value entered is not a valid menu option

Field Values:

1. Business & Financial Operations
2. Architecture & Engineering
3. Community & Social Services
4. Education, Training, & Library
5. Healthcare Practitioners & Technical
6. Protective Service
7. Building & Grounds Cleaning/Maintenance
8. Sales & Related
9. Farming, Fishing, & Forestry
10. Installation, Maintenance, & Repair
11. Transportation & Material Moving
12. Management
13. Computer & Mathematics
14. Life, Physical, & Social Sciences
15. Legal Occupations
16. Arts, Design, Entertainment, Sports, & Media
17. Healthcare Support Occupations
18. Food Preparation & Serving
19. Personal Care & Service
20. Office & Administrative Support
21. Construction & Extraction Occupations
22. Production Occupations
23. Military Occupations

Notes:

- If field completed; Work related field should be "Yes", & patient's occupational industry should be completed
- Field should be N/A if Work Related field is "No"

Injury External Cause Code (ICD-10)

TR200_3_1 ICD-10 Injury Code	
NTDS Name/Number:	I_06 ICD-10 External Cause Code
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Relevant ICD-10-CM code for cause of Injury Event
Field Constraints:	Field cannot be N/A	E-Code is not a valid ICD-10-CM code (ICD-10-CM only)	E-Code is not a valid ICD-10-CA code (ICD-10-CA only)	Field Value should not be Y92.X/ Y92.XX/ Y92.XXX (where X is A-Z or 0-9) (ICD-10-CM only)	Field should not be Y93.X / Y93.XX (where X is A-Z or 0-9) (ICD-10-CM only)

Notes:
- Value entered (code) should describe the mechanism/external factor that caused the traumatic injury *OR* the main reason the patient is admitted to the hospital
- ICD-10-CM codes are accepted in this element, activity codes should not be entered here
- Completion of this field auto populates: Trauma Type and Intentionality fields

Additional Injury External Cause Code (ICD-10)

TR5_8 Injury Supplemental Cause	
NTDS Name/Number:	I_08 ICD-10 Additional External Cause Code
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:Many
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Relevant ICD-10-CM code for additional causes of Injury Event
Field Constraints:	E-Code is not a valid ICD-10-CM code (ICD-10-CM only) | E-Code is not a valid ICD-10-CA code (ICD-10-CA only) | Field Value should not be equal to the Primary External Cause Code

Notes:
- Field should be N/A if no Additional External Cause Codes are used
- Value entered (code) should describe any additional mechanisms/external factors that caused the traumatic injury
- Multiple Cause Coding Hierarchy: If multiple events cause separate injuries, an external cause code should be selected for each event. Codes should be selected in the following order:
    1. Codes for child & adult abuse take priority over all other external cause codes
    2. Codes for terrorism take priority over all other external cause codes *EXCEPT:* child and adult abuse
    3. Codes for Cataclysmic event take priority over all other external cause codes *EXCEPT:* child and adult abuse or terrorism
    4. External cause codes for Transport Accidents take priority over all other external cause codes *EXCEPT:* child and adult abuse, terrorism, and cataclysmic events
    5. The first listed code should correspond to the cause of the most serious diagnosis due to assault, accident or self-harm following the hierarchy above

External Cause of Injury

TR200_3_3 Trauma Type w/ ICD-10 COI Codes	
NTDS Name/Number:	Auto-populated field from Injury External Cause Code(s)
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Auto-Populate
Accepts CNV:	No
Accepts "Blank":	No
Field Values:	Blunt, Penetrating, Burn
Field Constraints:	Auto-populated based on completion of the External Cause Code(s) fields

Notes:

Intentionality

TR200_3_2 Injury Intentionality w/ ICD-10 COI Codes	
NTDS Name/Number:	Auto-populated field from Injury External Cause Code(s)
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Auto-Populate
Accepts CNV:	No
Accepts "Blank":	No
Field Values:	
Field Constraints:	Auto-populated based on completion of the External Cause Code(s) fields

Notes:
- Field values are auto-populated based on the completion of the External Cause Code(s) Fields and the CDC matrix

Place of Occurrence External Cause Code (ICD-10)

TR200_5 ICD-10 Location Code	
NTDS Name/Number:	I_07 ICD-10 Place of Occurrence External Cause Code
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	No
Accepts "Blank":	No
Field Values:	Relevant ICD-10-CM Code for the location of the Injury Event
Field Constraints:	Field cannot be N/A | Invalid Value (ICD-10-CM or ICD-10-CA) | Place of Injury Code should be Y92.X/ Y92.XX/ Y92.XXX (where X is A-Z[excluding I, O] or 0-9)(ICD-10-CM only) | Place of Injury Code should be U98X (where X is 0-9) (ICD-10-CA only).

Notes:
- Only ICD-10-CM codes will be accepted for ICD-10 Place of Occurrence External Cause Code
- Multiple Cause Coding Hierarchy: If multiple events cause separate injuries, an external cause code should be selected for each event. Codes should be selected in the following order:
    1. Codes for child & adult abuse take priority over all other external cause codes
    2. Codes for terrorism take priority over all other external cause codes *EXCEPT:* child and adult abuse
    3. Codes for Cataclysmic event take priority over all other external cause codes *EXCEPT:* child and adult abuse or terrorism
    4. External cause codes for Transport Accidents take priority over all other external cause codes *EXCEPT:* child and adult abuse, terrorism, and cataclysmic events
    5. The first listed code should correspond to the cause of the most serious diagnosis due to assault, accident or self-harm following the hierarchy above

Incident Address

TR5_5 Incident Street Address	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See Example Below
Field Constraints:	Max 100 Characters

Field Values:
- 123 Fake Street (Avenue, Boulevard, Circle, Drive, Place, Terrace, Way) Apartment (Building, Suite, Unit) 4

Notes:
- Street address of the incident location *OR* the nearest street address to scene of injury

Incident City

TR5_10 City	
NTDS Name/Number:	1_13 Incident City
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String	Five Character City Code
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Code for city, township, or village where incident occurred
Field Constraints:	Value entered is invalid	If incident did not occur in US field must be N/A

Field Values:
- Five Character FIPS codes representing city occurred in

Notes:
- Field is only completed manually when home zip code is Not Known/Recorded and home country is US
- Field used to calculate FIPS code

Incident Zip Code

TR5_6 Postal Code	
NTDS Name/Number:	I_09 Incident Location Zip Code
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer | 5 or 9 digit for US and CA
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Zip code for location of incident
Field Constraints:	Value entered is invalid | Field cannot be N/A

Notes:
- Field is used to populate Incident State, County, and City
- If field is Not Known/Recorded manually complete Incident Country, State, County, & City Fields
- If zip code is completed, incident country must also be completed

Incident Country

TR5_11 Country	
NTDS Name/Number:	I_10 Incident Country
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String	Two Character Country Code
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Code for country where incident occurred. (e.g. US for United States)
Field Constraints:	Value entered is invalid	Field cannot be N/A	Field Cannot be Not Known/Recorded Incident Location zip code Not Known/Recorded

Field Values:
- Two Character FIPS codes representing country incident occurred in

Notes:
- If incident country is not US, then incident state, county, and city must be N/A

Incident State

TR5_7 State	
NTDS Name/Number:	I_11 Incident State
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String	Two Character State Code
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Code for state where incident occurred (e.g. NH for New Hampshire)
Field Constraints:	Value entered is invalid	If Incident did not occur in the US, Field must be N/A

Field Values:
- Two Character FIPS codes representing state incident occurred in

Notes:
- Field is only completed manually when incident zip code is Not Known/Recorded and country is US
- Field used to calculate FIPS code

Incident County

TR5_9 County	
NTDS Name/Number:	I_12 Incident County
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String	Three Character County Code
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Code for county where incident occurred
Field Constraints:	Value entered is invalid	If incident did not occur in US field must be N/A

Field Values:
- Three Character FIPS codes representing county incident occurred in

Notes:
- Field is only completed manually when incident zip code is Not Known/Recorded and incident country is US
- Field used to calculate FIPS code

Safety Equipment /Protective Devices

TR29_10 Safety Equipment Description	
NTDS Name/Number:	I_14 Protective Devices
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:Many
Data Entry:	Multi-Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values	Check all that apply
Field Constraints:	Value entered is not a valid menu option	Field cannot be N/A

Field Values:
1. None
2. Lap Belt
3. Personal Floatation Device
4. Protective Gear (non-clothing e.g. shin guard)
5. Eye Protection
6. Child Restraint (booster seat or child car seat)
7. Helmet (e.g. bicycle, motorcycle, skiing, industrial)
8. Airbag Present
9. Protective Clothing (e.g. padded pants and jacket)
10. Shoulder Belt
11. Other

Notes:
- Fields may be completed based on direct observation or reported use
- If "Child Restraint" is selected you must complete the "Child Specific Restraint" field
- If "Airbag Present" is selected you must complete the "Airbag Deployment" field
- If EMS reports patient was "Restrained" but does not further specify, select "Lap Belt"
- If EMS reports patient was secured via "Three Point Restraint", select "Lap Belt" and "Shoulder Belt"

Child Specific Restraint

TR29_13 Child Restraint	
NTDS Name/Number:	I_15 Child Specific Restraint
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single-Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option | Field cannot be N/A when Protective Device field includes "Child Restraint"

Field Values:
1. Child Car Seat
2. Infant Car Seat
3. Child Booster Seat

Notes:
- Field may be completed based on direct observation or reported use
- Field is completed only when Protective Device field includes "Child Restraint"
- Field may be N/A when Protective Device field does not include "Child Restraint"

Airbag Deployment

TR29_3 Airbag Present	
NTDS Name/Number:	I_16 Airbag Deployment
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:Many
Data Entry:	Multi-Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values	Check all that apply
Field Constraints:	Value entered is not a valid menu option	Field cannot be N/A when Protective Device field includes "Airbag Present"

Field Values:
1. Airbag not deployed
2. Airbag deployed front
3. Airbag deployed side
4. Airbag deployed other (e.g. knee, air belt, curtain, etc.)

Notes:
- Field may be completed based on direct observation or reported use
- If EMS reports or patient states airbags deployed, but does not specify type, use "Airbag Deployed Front".
- Field is completed only when Protective Device field includes "Airbag Present"
- Field may be N/A when Protective Device field does not include "Airbag Present"

Report of Physical Abuse

TR41_1 Report of Physical Abuse	
NTDS Name/Number:	I_17 Report of Physical Abuse
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Yes/No
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option | Field cannot be N/A

Field Values:
1. Yes
2. No

Notes:
- Field is completed when a report of suspected Physical abuse is made to Law Enforcement and/or Protective Services
    - Includes but is not limited to physical abuse of a
        - Child
        - Elder
        - Spouse
        - Intimate Partner
- If field is completed, must also complete Investigation of Physical Abuse *AND* Caregiver at Discharge fields.

Investigation of Physical Abuse

TR41_2 Investigation of Physical Abuse	
NTDS Name/Number:	I_18 Investigation of Physical Abuse
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Yes/No
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option | Field cannot be N/A when Report of Physical Abuse field is "Yes"

Field Values:
1. Yes
2. No

Notes:
- Field is completed when an investigation is initiated by Law Enforcement and/or Protective Services because of the report of suspected Physical abuse
  - Includes but is not limited to physical abuse of a
    - Child
    - Elder
    - Spouse
    - Intimate Partner
- Field may be N/A when Report of Physical Abuse Field is "No"

Caregiver at Discharge

TR41_3 Caregiver at Discharge	
NTDS Name/Number:	I_19 Caregiver at Discharge
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Yes/No
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option | Field cannot be N/A when Report of Physical Abuse field is "Yes"

Field Values:
1. Yes
2. No

Notes:
- Field is answered regarding whether the patient was discharged to a different caregiver than the caregiver at admission due to suspected physical abuse
- Only completed for minors who are not emancipated
- Field may be N/A if:
    - Report of Physical Abuse field is "No"
    - The patient is older than the state/local definition of a minor _OR_ is emancipated
    - The patient expires prior to discharge

PRE-HOSPITAL INFORMATION

The Following fields should auto-populate through the use of the "EMS Lookup" tool in the NHTR

EMS Agency Name

TR7_3 Service	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Name of the EMS service the patient was transported by
Field Constraints:	

Notes:
- Field should be completed with RV if at all possible.
- Field may be N/A in the case of patients who are not transported by EMS

EMS Agency Run Number

TR7_1 EMS Incident Number	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	No
Data Format:	String
Record Occurrence:	0:Many
Data Entry:	Auto-Populate
Accepts CNV:	Yes
Accepts "Blank":	Yes
Field Values:	Auto-populate EMS agency run number(s) if EMS PCR data is pulled in from TEMSIS
Field Constraints:	

Notes:
- Field should be completed with RV if at all possible.
- Field may be N/A in the case of patients who are not transported by EMS

EMS Agency PCR Number

TR9_11 EMS PCR Number	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	No
Data Format:	String
Record Occurrence:	0:Many
Data Entry:	Auto-Populate
Accepts CNV:	Yes
Accepts "Blank":	Yes
Field Values:	Auto-populate EMS agency run number(s) if EMS PCR data is pulled in from TEMSIS
Field Constraints:	

Notes:
- Field should be completed with RV if at all possible.
- Field may be N/A in the case of patients who are not transported by EMS

EMS Dispatch Date

TR9_1 Unit Notified Date	
NTDS Name/Number:	P_01 EMS Dispatch Date
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer	YYYY-MM-DD
Record Occurrence:	1:1
Data Entry:	Date
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Date EMS Dispatched
Field Constraints:	Date is not valid	Date out of range	Dispatch date is earlier than DOB	Dispatch date is later than EMS arrival date, EMS departure date, ED/Hospital arrival date, ED discharge date or hospital discharge date

Notes:
- Auto generates Total EMS Time field
- For Inter-facility Transfer patients, field reflects the date on which the transporting ambulance was dispatched/assigned to transport this trauma patient to your facility
- For Scene patients, field represents the date that the transporting ambulance was dispatched to the scene of the injury for this trauma patient
- Field may be N/A in the case of patients who are not transported by EMS

EMS Dispatch Time

TR9_10 Unit Notified Time	
NTDS Name/Number:	P_02 EMS Dispatch Time
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer	HH:MM 24-hour time
Record Occurrence:	1:1
Data Entry:	Time
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Time EMS Dispatched
Field Constraints:	Time is not valid	Time out of range	Dispatch time is later than EMS arrival time, EMS departure time, ED/Hospital arrival time, ED discharge time or hospital discharge time

Notes:
- Auto generates Total EMS Time field
- For Inter-facility Transfer patients, field reflects the time at which the transporting ambulance was dispatched/assigned to transport this trauma patient to your facility
- For Scene patients, field represents the time that the transporting ambulance was dispatched to the scene of the injury for this trauma patient
- Field may be N/A in the case of patients who are not transported by EMS

EMS Scene Arrival Date

TR9_2 Arrive Scene	
NTDS Name/Number:	P_03 EMS Unit Arrival Date at Scene or Transferring Facility
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer | YYYY-MM-DD
Record Occurrence:	1:1
Data Entry:	Date
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Date EMS Arrived On Scene
Field Constraints:	Date is not valid | Date out of range | Arrival date is earlier than DOB , Dispatch date. | Arrival date is later than EMS departure date, ED/Hospital arrival date, ED discharge date or hospital discharge date | Scene arrival date minus dispatch date is greater than 7 days

Notes:
- Auto generates Total EMS Time field _AND_ Total EMS Scene Time field
- For Inter-facility Transfer patients, field reflects the date on which the transporting ambulance arrived at the transferring facility to transport this trauma patient to your facility
- For scene patients, field represents the date that the transporting ambulance arrived to the scene of the injury for this trauma patient
- Field may be N/A in the case of patients who are not transported by EMS

EMS Scene Arrival Time

TR9_2_1 Time Unit Arrived on Scene	
NTDS Name/Number:	P_04 EMS Unit Arrival Time at Scene or Transferring Facility
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer	HH:MM 24-hour time
Record Occurrence:	1:1
Data Entry:	Time
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Time EMS Arrived On Scene
Field Constraints:	Time is not valid	Time out of range |Arrival time is earlier than Dispatch time	Arrival time is later than EMS departure time, ED/Hospital arrival time, ED discharge time or hospital discharge time

Notes:
- Auto generates Total EMS Response Time _AND_ Total EMS Scene Time
- For Inter-facility Transfer patients, field reflects the time at which the transporting ambulance was arrived at the transferring facility to transport this trauma patient to your facility
- For scene patients, field represents the time that the transporting ambulance arrived to the scene of the injury for this trauma patient
- Field may be N/A in the case of patients who are not transported by EMS

EMS Scene Departure Date

TR9_3 Leave Scene	
NTDS Name/Number:	P_05 EMS Unit Departure Date From Scene or Transferring Facility
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer	YYYY-MM-DD
Record Occurrence:	1:1
Data Entry:	Date
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Date EMS Left Scene
Field Constraints:	Date is not valid	Date out of range	Departure date is earlier than DOB , Dispatch date, Arrival date	Departure date is later than ED/Hospital arrival date, ED discharge date or hospital discharge date	Departure date minus Arrival date is greater than 7 days

Notes:
- Auto generates Total EMS Scene Time field
- For Inter-facility Transfer patients, field reflects the date on which the transporting ambulance left the transferring facility to transport this trauma patient to your facility
- For scene patients, field represents the date that the transporting ambulance left the scene of the injury to transport this trauma patient to your facility
- Field may be N/A in the case of patients who are not transported by EMS

EMS Scene Departure Time

TR9_3_1 Time Unit Left Scene	
NTDS Name/Number:	P_06 EMS Unit Departure Time From Scene or Transferring Facility
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer | HH:MM 24-hour time
Record Occurrence:	1:1
Data Entry:	Time
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Time EMS Left Scene
Field Constraints:	Time is not valid | Time out of range |Departure time is earlier than Dispatch time, Arrival time | Departure time is later than ED/Hospital arrival time, ED discharge time or hospital discharge time

Notes:
- Auto generates Total EMS Response Time _AND_ Total EMS Scene Time
- For Inter-facility Transfer patients, field reflects the time at which the transporting ambulance was arrived at the transferring facility to transport this trauma patient to your facility
- For scene patients, field represents the time that the transporting ambulance arrived to the scene of the injury for this trauma patient
- Field may be N/A in the case of patients who are not transported by EMS

EMS Transport Mode

TR8_10 EMS Transport Mode From Scene	
NTDS Name/Number:	P_07 Transport Mode
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See Below for Specific Values
Field Constraints:	Value entered is not a valid menu option | Field cannot be N/A

Field Values:
1. Ground Ambulance
2. Helicopter Ambulance
3. Fixed Wing Ambulance
4. Private/Public Vehicle/ Walk-in
5. Police
6. Other

Notes:
- Field should be "Private/Public Vehicle/Walk-in" when EMS times are "N/A"

Other EMS Transport Mode

TR8_11 Other Modes of EMS Transport	
NTDS Name/Number:	P_08 Other Transport Mode
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:Many
Data Entry:	Multi-Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See Below for Specific Values	Check All That Apply (MAX 5)
Field Constraints:	Value entered is not a valid menu option

Field Values:
1. Ground Ambulance
2. Helicopter Ambulance
3. Fixed Wing Ambulance
4. Private/Public Vehicle/ Walk-in
5. Police
6. Other

Notes:
- Field refers to all other transport modes utilized prior to the patient's arrival at your facility *EXCEPT* the mode that delivered the patient to your facility (e.g. ground ambulance transported patient to a landing zone where the helicopter that brought the patient to your facility as waiting)
- Field should be "N/A" if no other transport mode was used in addition to the mode that delivered the patient to your facility

Initial Field Systolic Blood Pressure

TR18_67 Systolic Blood Pressure	
NTDS Name/Number:	P_09 Initial Field Blood Pressure
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	First Recorded Blood Pressure Measured at Scene of Injury
Field Constraints:	Value entered is invalid	Max 3 characters	SBP exceeds max of 300 mmHg

Notes:
- Field should be "Not Known/Recorded" when the patient is transferred to your facility without an EMS Run Report from the Scene of Injury
- Field should be "N/A" for patients who arrived to your facility by "Private/Public Vehicle/Walk-in"
- Recorded value must be without the assistance of CPR or Mechanical Chest Compressions
  - For these patients record the value when obtained when compressions are paused

Initial Field Pulse Rate

TR18_69 Pulse Rate	
NTDS Name/Number:	P_10 Initial Field Pulse Rate
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	First Recorded Pulse Rate Measured at Scene of Injury
Field Constraints:	Value entered is invalid | Max 3 characters | PR exceeds max of 299 BPM

Notes:
- Field should be "Not Known/Recorded" when the patient is transferred to your facility without an EMS Run Report from the Scene of Injury
- Field should be "N/A" for patients who arrived to your facility by "Private/Public Vehicle/Walk-in"
- Recorded value must be without the assistance of CPR or Mechanical Chest Compressions
  - For these patients record the value when obtained when compressions are paused

Initial Field Respiratory Rate

TR16_70 Respiratory Rate	
NTDS Name/Number:	P_11 Initial Field Respiratory Rate
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	First Recorded Respiratory Rate Measured at Scene of Injury
Field Constraints:	Value entered is invalid | Max 3 characters | Value entered is out of range

Field Value Ranges:
- Age <6yrs: RR Cannot exceed 120/minute
- Age ≥6yrs: RR Cannot exceed 99/minute
- Age/Age Units not valued: RR should not exceed 99/minute _MAX_ 120/minute

Notes:
- Field should be "Not Known/Recorded" when the patient is transferred to your facility without an EMS Run Report from the Scene of Injury
- Field should be "N/A" for patients who arrived to your facility by "Private/Public Vehicle/Walk-in"

Initial Field Oxygen Saturation

TR18_31 Oxygen Saturation	
NTDS Name/Number:	P_12 Initial Field Oxygen Saturation
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	First Recorded Oxygen Saturation Measured at Scene of Injury
Field Constraints:	Value entered is invalid | Max 3 characters | Value entered is >100%

Notes:
- Field should be "Not Known/Recorded" when the patient is transferred to your facility without an EMS Run Report from the Scene of Injury
- Field should be "N/A" for patients who arrived to your facility by "Private/Public Vehicle/Walk-in"
- Recorded value should be based on initial assessment prior to administration of supplemental oxygen

Initial Field GCS – Eye

TR18_60 Glasgow Eye	
NTDS Name/Number:	P_13 Initial Field GCS – Eye
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See Below for Specific Values
Field Constraints:	Value entered is not a valid menu option

Field Values:
1. No eye movement when assessed
2. Opens eyes to painful stimulation
3. Opens eyes to verbal stimulation
4. Opens eyes spontaneously

Notes:
- Auto generates "Overall GCS – EMS Score" field
- If there is no numeric GCS score listed on the EMS Run Form, but the narrative relays verbiage that closely or directly describes a level of functioning within the GCS scale (e.g. "the patient's pupils are PERRL") document GCS Score (e.g. GCS Eye of 4)
  - o Be sure to double check for contraindicating documentation (e.g. "patient's eyes open to verbal only") prior to assigning score
- Field should be "Not Known/Recorded" when the patient is transferred to your facility without an EMS Run Report from the Scene of Injury
- Field should be "N/A" for patients who arrived to your facility by "Private/Public Vehicle/Walk-in"

Initial Field GCS – Verbal

TR18_61_2 Glasgow Verbal	
NTDS Name/Number:	P_14 Initial Field GCS – Verbal
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See Below for Specific Values
Field Constraints:	Value entered is not a valid menu option

Field Values PEDIATRIC (Age ≤ 2yrs):
1. No vocal response
2. Inconsolable, agitated
3. Inconsistently consolable, moaning
4. Cries but is consolable
5. Smiles, , follows objects, interacts

Field Values ADULT (Age > 2yrs):
1. No verbal response
2. Incomprehensible sounds
3. Inappropriate words
4. Confused
5. Oriented

Notes:
- Auto generates "Overall GCS – EMS Score" field
- If there is no numeric GCS score listed on the EMS Run Form, but the narrative relays verbiage that closely or directly describes a level of functioning within the GCS scale (e.g. "the patient is alert and oriented") document GCS Score (e.g. GCS Verbal of 5)
  - Be sure to double check for contraindicating documentation (e.g. "patient making incomprehensible sounds") prior to assigning score
- Field should equal "1" for intubated patients
- Field should be "Not Known/Recorded" when the patient is transferred to your facility without an EMS Run Report from the Scene of Injury
- Field should be "N/A" for patients who arrived to your facility by "Private/Public Vehicle/Walk-in"

Initial Field GCS – Motor

TR18_62_2 Glasgow Motor	
NTDS Name/Number:	P_15 Initial Field GCS – Motor
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See Below for Specific Values
Field Constraints:	Value entered is not a valid menu option

Field Values <u>PEDIATRIC</u> (Age ≤ 2yrs):
1. No motor response
2. Extension to pain
3. Flexion to pain
4. Withdrawal from pain
5. Localizing pain
6. Appropriate response to stimulation

Field Values <u>ADULT</u> (Age > 2yrs):
1. No motor response
2. Extension to pain
3. Flexion to pain
4. Withdrawal from pain
5. Localizing pain
6. Obeys Commands

Notes:
- Auto generates "Overall GCS – EMS Score" field
- If there is no numeric GCS score listed on the EMS Run Form, but the narrative relays verbiage that closely or directly describes a level of functioning within the GCS scale (e.g. "the patient withdraws from pain ") document GCS Score (e.g. GCS Motor of 4)
    - o Be sure to double check for contraindicating documentation (e.g. "patient flexes to pain") prior to assigning score
- Field should be "Not Known/Recorded" when the patient is transferred to your facility without an EMS Run Report from the Scene of Injury
- Field should be "N/A" for patients who arrived to your facility by "Private/Public Vehicle/Walk-in"

Initial Field GCS – Total

TR18_65 GCS Total Calculation	
NTDS Name/Number:	P_16 Initial Field GCS – Total
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	First Recorded GCS Total Measures at Scene of Injury
Field Constraints:	Value entered is outside the valid range 3 – 15

Notes:
- Field should be auto populated if other EMS GCS fields are completed
- If there is no numeric GCS score listed on the EMS Run Form, but the narrative relays verbiage that closely or directly describes a level of functioning within the GCS scale (e.g. "the patient is alert, oriented, and acting appropriately") document GCS Score (e.g. GCS Total of 15)
  - Be sure to double check for contraindicating documentation (e.g. "patient was sedated, paralyzed, and intubated") prior to assigning score
- Field should be "Not Known/Recorded" is used when the patient is transferred to your facility without an EMS Run Report from the Scene of Injury
- Field should be "N/A" for patients who arrived to your facility by "Private/Public Vehicle/Walk-in"

Inter-Facility Transfer

TR25_54 Inter-Facility Transfer	
NTDS Name/Number:	P_17 Inter-Facility Transfer
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Yes/No
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option	Field cannot be N/A

Field Values:
1. Yes
2. No

Notes:
- Field should not be "Not Known/Recorded"
- Patients transferred to your facility from a private doctor's office, stand-alone ambulatory surgery center, or delivered by non-EMS transport are not considered inter-facility transfers
- Outlying facilities purporting to provide emergency care services or utilized to stabilize a patient are considered acute care facilities

EMS Trauma Triage Criteria

TR17_22 Trauma Alert Type	
NTDS Name/Number:	P_18 Trauma Center Criteria
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:Many
Data Entry:	Multi-Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values	Check all that apply
Field Constraints:	Value entered is not a valid menu option

Field Values (Consistent with NEMSIS v3):
1. Glasgow Coma Score ≤ 13
2. SBP <90mmHg
3. RR <10 *OR* >29 (<20 in infants age <1yr) or need for ventilator support
4. All penetrating injuries to head, neck, torso, & extremities proximal to elbow or knee
5. Chest all instability/deformity (e.g. flail chest)
6. Two (2) or more proximal long bone fractures
7. Crushed, degloved, mangled, or pulseless extremity
8. Amputation proximal to wrist or ankle
9. Pelvic fracture
10. Open or depressed skull fracture
11. Paralysis

Notes:
- Field values entered must come from the EMS Run Report
- "N/A" should be used to indicate that the patient did not arrive by EMS *OR* if the EMS run report indicates that the patient did not meet any Trauma Center Criteria
- "Not Known/Reported" should be used if this information is marked "Not Known/Reported on the EMS Run Report OR if the EMS run report is not available

EMS Mechanism of Injury Risk Criteria

TR17_47 Vehicular Injury Indicators	
NTDS Name/Number:	P_19 Vehicular, Pedestrian, Other Risk Injury
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:Many
Data Entry:	Multi-Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values	Check all that apply
Field Constraints:	Value entered is not a valid menu option

Field Values (Consistent with NEMSIS v3):
1. Fall: adults >20ft (one story = 10ft)
2. Fall: children > 10ft _OR_ 2-3 times the height of the child
3. Crash: intrusion (including roof) >12in at occupant site _OR_ >18in at any site
4. Crash: ejection partial or complete
5. Crash: death in same passenger compartment
6. Crash: vehicle tele data consistent with high risk injury
7. Auto v. pedestrian/bicyclist thrown, run over, or >20MPH impact
8. Motorcycle crash >20MPH
9. Adults >65yrs: SBP <110
10. Patient on anticoagulants or with bleeding disorder
11. Pregnancy >20 weeks
12. EMS provider judgement
13. Burns
14. Burns w/ Trauma

Notes:
- Field values entered must come from the EMS Run Report
- "N/A" should be used to indicate that the patient did not arrive by EMS _OR_ if the EMS run report indicates that the patient did not meet any Trauma Center Criteria
- "Not Known/Reported" should be used if this information is marked "Not Known/Reported on the EMS Run Report OR if the EMS run report is not available

Pre-Hospital Cardiac Arrest

TR15_53 Pre-Hospital Cardiac Arrest	
NTDS Name/Number:	P_20 Pre-Hospital Cardiac Arrest
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Yes/No
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option | Field cannot be N/A

Field Values:

1. Yes
2. No

Notes:

- Field indicates a patient who experienced a sudden cessation of cardiac activity indicated by unresponsiveness, with no normal breathing and no signs of circulation
- Field is completed based on cardiac arrest occurring prior to arrival at your facility (e.g. at the scene of the injury, at transferring facility, or en route to receiving facility)
- Basic or Advanced Cardiac Life Support MUST have been initiated by a healthcare provider (e.g. CPR)

REFERRING FACILITY INFORMATION

Patent Arrived From

TR16_22 Location Patient Arrived From	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	No
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See Below for Specific Values
Field Constraints:	Value entered is not a valid menu option

Field Values:
1. Scene
2. Referring Hospital
3. Clinic/MD Office
4. Jail
5. Nursing Home
6. Supervised Living
7. Urgent care

Notes:
- Field Denotes if patient was inter-facility transfer
- Field should be completed with RV if at all possible.
- Enter Not Known/Reported as needed

Referring Hospital – Name

TR33_1 Referring Hospital	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Name of the Hospital referring the patent to your facility
Field Constraints:	

Notes:
- Field should be completed with RV if at all possible
- Field should not be "Not Known/Recorded"
- Field may be "N/A" in the case of patients who transported directly to your facility from the scene of the injury

EMERGENCY DEPARTMENT INFORMATION

Emergency Department/Hospital Arrival Date

TR18_55 Date Arrived ED/Acute Care	
NTDS Name/Number:	ED_01 ED/Hospital Arrival Date
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer	YYYY-MM-DD
Record Occurrence:	1:1
Data Entry:	Date
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Date patient arrived at your facility
Field Constraints:	Date is not valid	Date out of range |Field Cannot be N/A	ED/Hospital Arrival date is earlier than DOB , EMS dispatch date, EMS arrival date, EMS departure date	ED/Hospital arrival date is later than, ED discharge date or hospital discharge date	ED/Hospital arrival date minus dispatch date is greater than 7 days	ED/Hospital arrival date minus injury date should be less than 30 days

Notes:
- Auto generates Total EMS Time field _AND_ Total length of Hospital Stay
- If patient was brought to the ED enter the date the patient arrived at ED
- If patient was directly admitted to the hospital enter the date the patient was admitted to the hospital

Emergency Department/Hospital Arrival Time

TR18_56 Time Arrived ED/Acute Care	
NTDS Name/Number:	ED_02 ED/Hospital Arrival Time
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer | HH:MM 24-hour time
Record Occurrence:	1:1
Data Entry:	Time
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Time patient arrived at your facility
Field Constraints:	Time is not valid | Time out of range | Field cannot be N/A | ED/Hospital arrival time is earlier than EMS dispatch time, EMS arrival time, EMS departure time | ED/Hospital arrival time is later than, ED discharge time or hospital discharge time

Notes:
- Auto generates Total EMS Time _AND_ Total Length of Hospital Stay fields
- If patient was brought to the ED enter the time the patient arrived at ED
- If patient was directly admitted to the hospital enter the time the patient was admitted to the hospital

Initial ED/Hospital Systolic Blood Pressure

TR18_11 Systolic Blood Pressure	
NTDS Name/Number:	ED_03 Initial ED/Hospital Blood Pressure
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	First recorded Blood Pressure measured within 30 minutes of patient arrival
Field Constraints:	Value entered is invalid	Max 3 characters	SBP exceeds max of 300 mmHg

Notes:
- Recorded value must be without the assistance of CPR or Mechanical Chest Compressions
  - For these patients record the value when obtained when compressions are paused

Initial ED/Hospital Pulse Rate

TR18_2 Pulse Rate	
NTDS Name/Number:	ED_04 Initial ED/Hospital Pulse Rate
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	First recorded Pulse Rate measured within 30 minutes of patient arrival
Field Constraints:	Value entered is invalid | Max 3 characters | PR exceeds max of 299 BPM

Notes:
- Recorded value must be without the assistance of CPR or Mechanical Chest Compressions
    - For these patients record the value when obtained when compressions are paused

Initial ED/Hospital Temperature

TR18_30 Temperature	
NTDS Name/Number:	ED_05 Initial ED/Hospital Temperature
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	First recorded Temperature measured within 30 minutes of patient arrival	Measured in degrees Celsius (Centigrade)
Field Constraints:	Value entered is invalid	Field cannot be N/A |Temp exceeds max of 45.0 C

Notes:

Initial ED/Hospital Respiratory Rate

TR18_7 Respiratory Rate	
NTDS Name/Number:	ED_06 Initial ED/Hospital Respiratory Rate
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	First recorded Respiratory Rate measured within 30 minutes of patient arrival
Field Constraints:	Value entered is invalid | Max 3 characters | Value entered is out of range | Field cannot be N/A

Field Value Ranges:
- Age <6yrs: RR Cannot exceed 120/minute
- Age ≥6yrs: RR Cannot exceed 99/minute
- Age/Age Units not valued: RR should not exceed 99/minute _MAX_ 120/minute

Notes:
- If this field is completed you must also complete "Initial ED/Hospital Respiratory Assistance" field

Initial ED/Hospital Respiratory Assistance

TR18_10 Respiratory Assistance	
NTDS Name/Number:	ED_07 Initial ED/Hospital Respiratory Assistance
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single-Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option

Field Values:
1. Unassisted Respiratory Rate
2. Assisted Respiratory Rate

Notes:
- Field is only completed if "Initial ED/Hospital Respiratory Rate" field is completed
- Field should be "N/A" if "Initial ED/Hospital Respiratory Rate" field is "Not Known/Recorded"
- Respiratory Assistance is defined as mechanical and or external support of respiration

Initial ED/Hospital Oxygen Saturation

TR18_31 Pulse Oximetry	
NTDS Name/Number:	ED_08 Initial ED/Hospital Oxygen Saturation
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	First recorded oxygen saturation measured within 30 minutes of patient arrival.
Field Constraints:	Value entered is invalid | Max 3 characters | Value entered is >100%

Notes:
- If this field is completed you must also complete "Initial ED/Hospital Supplemental Oxygen" field

Initial ED/Hospital Supplemental Oxygen

TR18_109 Supplemental Oxygen	
NTDS Name/Number:	ED_08 Initial ED/Hospital Supplemental Oxygen
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single-Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option

Field Values:
1. No Supplemental Oxygen
2. Supplemental Oxygen

Notes:
- Field is only completed if "Initial ED/Hospital Oxygen Saturation" field is completed
- Field should be "N/A" if "Initial ED/Hospital Respiratory Rate" field is "Not Known/Recorded"

Initial ED/Hospital GCS – Eye

TR18_14 Glasgow Eye	
NTDS Name/Number:	ED_10 Initial ED/Hospital GCS – Eye
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See Below for Specific Values
Field Constraints:	Value entered is not a valid menu option | Field cannot be N/A

Field Values:
1. No eye movement when assessed
2. Opens eyes to painful stimulation
3. Opens eyes to verbal stimulation
4. Opens eyes spontaneously

Notes:
- Measured within 30 minutes of patient arrival at your facility
- Auto generates "Overall GCS – ED Score" field
- If there is no numeric GCS score recorded, but written documentation relays verbiage that closely or directly describes a level of functioning within the GCS scale (e.g. "the patient's pupils are PERRL") document GCS Score (e.g. GCS Eye of 4)
  - Be sure to double check for contraindicating documentation (e.g. "patient's eyes open to verbal only") prior to assigning score

Initial ED/Hospital GCS – Verbal

TR18_15_2 Glasgow Verbal	
NTDS Name/Number:	ED_11 Initial ED/Hospital GCS – Verbal
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See Below for Specific Values
Field Constraints:	Value entered is not a valid menu option | Field cannot be N/A

Field Values PEDIATRIC (Age ≤ 2yrs):
1. No vocal response
2. Inconsolable, agitated
3. Inconsistently consolable, moaning
4. Cries but is consolable
5. Smiles, , follows objects, interacts

Field Values ADULT (Age > 2yrs):
1. No verbal response
2. Incomprehensible sounds
3. Inappropriate words
4. Confused
5. Oriented

Notes:
- Measured within 30 minutes of patient arrival at your facility
- Auto generates "Overall GCS – ED Score" field
- If there is no numeric GCS score recorded, but written documentation relays verbiage that closely or directly describes a level of functioning within the GCS scale (e.g. "the patient is alert and oriented") document GCS Score (e.g. GCS Verbal of 5)
  - Be sure to double check for contraindicating documentation (e.g. "patient making incomprehensible sounds") prior to assigning score
- Field should equal "1" for intubated patients

Initial ED/Hospital GCS – Motor

TR18_16_2 Glasgow Motor	
NTDS Name/Number:	ED_12 Initial ED/Hospital GCS – Motor
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See Below for Specific Values
Field Constraints:	Value entered is not a valid menu option	Field cannot be N/A

Field Values PEDIATRIC (Age ≤ 2yrs):
1. No motor response
2. Extension to pain
3. Flexion to pain
4. Withdrawal from pain
5. Localizing pain
6. Appropriate response to stimulation

Field Values ADULT (Age > 2yrs):
1. No motor response
2. Extension to pain
3. Flexion to pain
4. Withdrawal from pain
5. Localizing pain
6. Obeys Commands

Notes:
- Measured within 30 minutes of patient arrival at your facility
- Auto generates "Overall GCS – ED Score" field
- If there is no numeric GCS score recorded, but written documentation relays verbiage that closely or directly describes a level of functioning within the GCS scale (e.g. "the patient withdraws from pain ") document GCS Score (e.g. GCS Motor of 4)
  - o Be sure to double check for contraindicating documentation (e.g. "patient flexes to pain") prior to assigning score

Initial ED/Hospital GCS – Total

TR18_22 GCS Total Calculation	
NTDS Name/Number:	ED_13 Initial ED/Hospital GCS – Total
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	First recorded GCS Total measured within 30 minutes of patient arrival
Field Constraints:	Value entered is outside the valid range 3 – 15 | Field cannot be N/A

Notes:
- Field should be auto populated if other ED GCS fields are
- If there is no numeric GCS score recorded, but written documentation relays verbiage that closely or directly describes a level of functioning within the GCS scale (e.g. "the patient is alert, oriented, and acting appropriately") document GCS Score (e.g. GCS Total of 15)
  - Be sure to double check for contraindicating documentation (e.g. "patient was sedated, paralyzed, and intubated") prior to assigning score

Initial ED/Hospital GCS – Assessment Qualifiers

TR18_21 GCS Qualifiers	
NTDS Name/Number:	ED_14 Initial ED/Hospital GCS – Assessment Qualifiers
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:Many
Data Entry:	Multi Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values	Check all that apply
Field Constraints:	Value entered is not a valid menu option| Field cannot be N/A

Field Values:
1. Patient chemically sedated or paralyzed
2. Obstruction to the patient's eye
3. Patient intubated
4. Valid GCS: patient was not sedated, or intubated, no obstruction to eye

Notes:
- Identifies treatments administered to the patient that may affect the initial assessment of GCS within 30 minutes of patient arrival at your facility
    - Field does not apply to self-medication or intentional abuse of medications by patient (e.g. ETOH, prescriptions)
- If intubated patient was recently administered an agent which results in neuromuscular blockade the chemical sedation modifier should be selected
    - Neuromuscular blockade is normally induced following administration of agents like: Succinylcholine, Rocuronium, Vecuronium, & Pancuronium.
        - Other agents also induce blockade, please be sure to familiarize yourself with the agents that your facility uses
    - Each agent has a different duration of action, therefore the effect on the GCS depends on when the agent was administered

Initial ED/Hospital Height

TR1_6 Height in Centimeters	
NTDS Name/Number:	ED_15 Initial ED/Hospital Height
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Patient's height recorded in Centimeters
Field Constraints:	Value entered is invalid | Field cannot be N/A | Height exceeds max of 244cm (≈8 feet)

Notes:
- Field value may be based on family or self-report

Initial ED/Hospital Weight

TR1_6_5 Estimated Weight in Kilograms	
NTDS Name/Number:	ED_16 Initial ED/Hospital Weight
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Patient's weight recorded in Kilograms
Field Constraints:	Value entered is invalid | Field cannot be N/A | Height exceeds max of 907kg (≈2000 pounds)

Notes:
- Field value may be based on family or self-report

Drug Screen

TR18_45 Drug Use Indicator	
NTDS Name/Number:	ED_17 Drug Screen
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:Many
Data Entry:	Multi Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values	Check all that apply
Field Constraints:	Value entered is not a valid menu option	Field cannot be N/A

Field Values:
1. AMP (Amphetamine)
2. BAR (Barbiturate)
3. BZO (Benzodiazepines)
4. COC (Cocaine)
5. mAMP (Methamphetamine)
6. MDMA (Ecstasy)
7. MTD (Methadone)
8. OPI (Opioid)
9. OXY (Oxycodone)
10. PCP (Phencyclidine)
11. TCA (Tricyclic Antidepressant)
12. THC (Cannabinoid)
13. Other
14. None
15. Not Tested

Notes:
- Recorded field values reflect positive drug screen results within 24 hours of the _FIRST_ hospital encounter at either your facility _OR_ the transferring facility
- A recorded value of "None" indicates those patients whose results were positive _ONLY_ for drugs that were administered to them in any facility or setting treating this patient event _OR_ those patients who had no positive results
- If multiple drugs are detected record _ONLY_ those drugs that were not administered in any facility or setting treating this patient event

Alcohol Screen

TR18_46 Alcohol Use Indicator/Screen	
NTDS Name/Number:	ED_18 Alcohol Screen
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Yes / No
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option | Field cannot be N/A

Field Values:
1. Yes
2. No

Notes:
- Record whether a Blood Alcohol Concentration (BAC) test was performed within 24 hours of the _FIRST_ hospital encounter
- The BAC may be administered at any facility, unit or setting treating this patient event

Alcohol Screen Results

TR18_103 Alcohol Use Indicator	
NTDS Name/Number:	ED_19 Alcohol Screen Results
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Collect as standard lab value (e.g. 0.08 mg/dL)
Field Constraints:	Value entered is invalid | Field cannot be N/A when "Alcohol Screen" field is "Yes"

Notes:
- Record Blood Alcohol Concentration (BAC) test results for test performed within 24 hours of the *FIRST* hospital encounter
- The BAC may be administered at any facility, unit or setting treating this patient event
- The field may be N/A for those patients who were not tested

ED Discharge Disposition

TR17_27 ED Disposition	
NTDS Name/Number:	ED_20 ED Discharge Disposition
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option | Field cannot be Not Known/Recorded | Field cannot be N/A when: Hospital discharge date is N/A *OR* Not Known/Recorded *OR* Hospital discharge disposition is N/A *OR* Not Known/Recorded

Field Values:

1. Floor Bed (general admission, non-specialty unit)
2. Observation Unit (unit providing <24hr stay)
3. Telemetry/Step-Down Unit (less acuity than ICU)
4. Home *WITH* Services
5. Deceased/Expired
6. Other (jail, institutional care, mental health etc.)
7. Operating Room
8. Intensive Care Unit (ICU)
9. Home *WITHOUT* Services
10. Left Against Medical Advice (AMA)
11. Transferred to Another Hospital

Notes:

- Field May be "N/A" if patient was directly admitted to the hospital
- If ED Discharge Disposition is 4,5,6,9,10,11 than hospital Discharge date, time, and disposition fields should be "N/A"

Signs of Life

TR27_14 ED Death	
NTDS Name/Number:	ED_21 Signs of Life
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option	Field cannot be N/A

Field Values:
1. Arrived *WITHOUT* signs of life
2. Arrived *WITH* signs of life

Notes:
- Record whether patient presented to the ED/Hospital with Signs of Life
- Patents *WITHOUT* signs of life have none of the following:
  - Organized EKG Activity
  - Pupillary Responses
  - Spontaneous Respiratory Attempts or Movement
  - Unassisted Blood Pressure (Blood Pressure without CPR or mechanical chest compressions)
  - Patient presented to ED with CPR in progress

Emergency Department Discharge Date

TR17_25 Date Discharged from ED	
NTDS Name/Number:	ED_22 ED Discharge Date
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer | YYYY-MM-DD
Record Occurrence:	1:1
Data Entry:	Date
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Date order was written for patient to be discharged from the ED
Field Constraints:	Date is not valid | Date out of range | ED discharge date is earlier than DOB , EMS dispatch date, EMS arrival date, EMS departure date, ED/Hospital arrival date | ED discharge date is later than hospital discharge date | ED discharge date minus ED/Hospital Arrival date is greater than 365 days

Notes:
- Auto generates Total ED Time
- If "ED Discharge Disposition" is "Deceased/Expired" then the "ED Discharge Date" is the patient's date of death as listed on their Death Certificate
- Field May be "N/A" if patient was directly admitted to the hospital

Emergency Department Discharge Time

TR17_26 Time Discharged from ED	
NTDS Name/Number:	ED_23 ED/Hospital Arrival Time
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer	HH:MM 24-hour time
Record Occurrence:	1:1
Data Entry:	Time
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Time patient arrived at your facility
Field Constraints:	Time is not valid	Time out of range	ED discharge time is earlier than EMS dispatch time, EMS arrival time, EMS departure time, ED/Hospital arrival time	ED discharge time is later than hospital discharge time

Notes:
- Auto generates Total ED Time
- If "ED Discharge Disposition" is "Deceased/Expired" then the "ED Discharge Time" is the patient's time of death as listed on their Death Certificate
- Field May be "N/A" if patient was directly admitted to the hospital

Hospital Transferred To

TR17_61 ED Hospital Transferred To	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Name of the Hospital your facility transferred the patient to
Field Constraints:	

Notes:
- Field should be completed with RV if at all possible
- Field should not be "Not Known/Recorded"
- Field may be "N/A" in the case of patients who were not referred or transferred to another facility

Hospital Transferred To – Transport Mode

TR25_43 Transport Mode	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See Below for Specific Values	Check all that apply
Field Constraints:	Value entered is not a valid menu option

Field Values:
1. BLS
2. ALS
3. Paramedic Inter-Facility Transfer (PIFT)
4. Critical Care Transport Team (CCT)
5. PIFT With Hospital Staff (CCT Team Not Available)
6. Ground Ambulance
7. Helicopter Ambulance
8. Fixed Wing Ambulance

Notes:
- Field may be "N/A" in the case of patients who were not referred or transferred to another facility

Hospital Transferred To – Transporting Agency Name

TR17_81 ED Transferring EMS Agency Name	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Name of the EMS service that transported the patient from your facility
Field Constraints:	

Notes:
- Field should be completed with RV if at all possible.
- Field may be "N/A" in the case of patients who were not referred or transferred to another facility

HOSPITAL PROCEDURE INFORMATION

ICD-10 Hospital Procedures (2 Pages)

TR200_2_1 ICD-10 Procedure	
NTDS Name/Number:	HP_01 ICD-10 Hospital Procedures
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:Many
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values	Enter all that apply
Field Constraints:	Value entered in invalid ICD-10 CM _OR_ ICD-10 CA	Procedures with the same code cannot have the same hospital procedure start date and time	Number of codes entered exceeds the 200 code maximum	Field should not be N/A

Field Values:

Diagnostic & Therapeutic Imaging:
- CT Head*
- CT Chest*
- CT Abdomen*
- CT Pelvis*
- Diagnostic Ultrasound (Includes FAST)*
- Doppler Ultrasound of Extremities*
- Angiography
- Angioembolization
- REBOA (ICD-10: 04L03DZ)
- IVC Filter

Cardiovascular:
- Open Cardiac Massage
- CPR

Central Nervous System:
- Insertion of ICP Monitor*
- Ventriculostomy*
- Cerebral Oxygen Monitoring*

Gastrointestinal:
- Endoscopy (including gastroscopy, sigmoidoscopy, colonoscopy)
- Gastrostomy/Jejunostomy (percutaneous _OR_ endoscopic)
- Percutaneous (endoscopic) Gastrojejunoscopy

Genitourinary:
- Ureteric Catheterization (i.e. Ureteric Stent)
- Suprapubic Cystostomy

Musculoskeletal:
- Soft Tissue/Bony Debridement*
- Closed Reduction of Fractures
- Skeletal & Halo Traction
- Fasciotomy

Respiratory:
- Insertion of endotracheal tube* (exclude intubations performed in OR)
- Continuous Mechanical Ventilation*

- Chest Tube*
- Bronchoscopy*
- Tracheostomy

Transfusion (Only Capture First 24hrs after Hospital Admission):
- Transfusion of Red Cells*
- Transfusion of Platelets*
- Transfusion of Plasma*

Notes:
- Include only procedures performed at your facility
- Capture all procedures performed in the Operating Room (OR)
- Capture all procedures in the ED, ICU, Ward, or Radiology that were essential to the diagnosis, stabilization, or treatment of the patient's specific injuries or complications
- Procedures marked with and asterisk (*) may be performed multiple times during one hospital course. Capture only the first event
- Procedures not marked with and asterisk (*) should have each event captured

Hospital Procedure Start Date

TR200_8 Procedure Performed Date	
NTDS Name/Number:	HP_02 Hospital Procedure Start Date
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer	YYYY-MM-DD
Record Occurrence:	1:1
Data Entry:	Date
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Date procedure was performed
Field Constraints:	Date is not valid	Date out of range	Procedure start date is earlier than DOB , EMS dispatch date, EMS arrival date, EMS departure date, ED/Hospital arrival date	Procedure start date is later than hospital discharge date

Notes:

Hospital Procedure Start Time

TR200_9 Procedure Performed Time	
NTDS Name/Number:	HP_03 Hospital Procedure Start Time
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer | HH:MM 24-hour time
Record Occurrence:	1:1
Data Entry:	Time
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Time patient arrived at your facility
Field Constraints:	Time is not valid | Time out of range | Procedure start time is earlier than EMS dispatch time, EMS arrival time, EMS departure time, ED/Hospital arrival time | Procedure start time is later than hospital discharge time

Notes:

- Field Value is defined as the time at which the incision was made _OR_ the procedure started
- If multiple procedures with the same procedure codes are performed, their start time _MUST_ be different

DIAGNOSIS INFORMATION

Co-Morbid Conditions (2 Pages)

TR200_4 Comorbidity	
NTDS Name/Number:	DG_01 Co-Morbid Conditions
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:Many
Data Entry:	Multi Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for Specific values | Check all that apply
Field Constraints:	Value entered in not a valid menu option

Field Values:

1. Other
2. Alcohol Use Disorder
4. Bleeding Disorder
5. Currently Receiving Chemotherapy for Cancer
6. Congenital Anomalies
7. Congestive Heart Failure
8. Current Smoker
9. Chronic Renal Failure
10. Cerebrovascular Accident (CVA)
11. Diabetes Mellitus
12. Disseminated Cancer
13. Advanced Directive Limiting Care
15. Functionally Dependent Health Status
19. Hypertension
21. Prematurity
23. Chronic Obstructive Pulmonary Disease (COPD)
24. Steroid Use
25. Cirrhosis
26. Dementia
30. Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder (ADD/ADHD)
31. Anticoagulant Therapy
32. Angina Pectoris
33. Mental/Personality Disorder
34. Myocardial Infarction (MI)
35. Peripheral Arterial Disease (PAD)
36. Substance Abuse Disorder

Notes:

- Several Conditions have been retired by the ACS, This is the cause of the numbering gaps
- The field may be N/A if the patient has no co-morbid conditions

ICD-10 Injury Diagnoses

TR200_1 ICD 10 Diagnoses	
NTDS Name/Number:	DG_02 ICD-10 Injury Diagnoses
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	ICD-10-CM Codes Range S00-S99, T07, T14, T20-T28 & T30-T32
Field Constraints:	Value entered is Invalid ICD-10-CM _OR_ ICD-10-CA	At least one diagnosis must be provided _AND_ meet Inclusion Criteria ICD-10-CM _OR_ ICD-10-CA	Number of codes exceeds max of 50

Notes:
- ICD-10-CM codes that pertain to other medical conditions (e.g. CVA, MI, and Co-Morbidities) may be included in this field
- Field used to auto-generate Abbreviated Injury Scale and Injury Severity Score Fields
- Field should not be "Not Known/Recorded".

INJURY SEVERITY INFORMATION

AIS Pre-Dot Code

TR200_1_4 ICD-10 AIS 05 Code	
NTDS Name/Number:	IS_01 AIS Pre-Dot Code
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	6 digits preceding the decimal point in the associated AIS Code
Field Constraints:	Value entered is invalid	Field cannot be N/A	Code entered is not an AIS 05, Update 08 code

Notes:

- Enter the Abbreviated Injury Scale (AIS) pre-dot codes that reflect the patient's injuries

AIS Severity

TR200_14_3 AIS Severity	
NTDS Name/Number:	IS_02 AIS Severity
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option | Field cannot be N/A

Field Values
1. Minor Injury
2. Moderate Injury
3. Serious Injury
4. Severe Injury
5. Critical Injury
6. Maximum Injury, Virtually Unsurvivable
9. Not Possible to Assign

Notes:
- "Not Possible to Assign" would be selected if it is not possible to assign a severity to an injury

AIS Version

TR21_25 AIS Version	
NTDS Name/Number:	IS_03 AIS Version
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option | Field cannot be N/A

Field Values:
6. AIS 05, Update 08

Notes:
- Select the Software and Version used to calculate the AIS severity codes

OUTCOME INFORMATION

Total ICU Length of Stay (2 Pages)

TR26_9 Total ICU Days	
NTDS Name/Number:	O_01 Total ICU Length of Stay
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Cumulative amount of time spent in ICU
Field Constraints:	Value entered is out of range | ICU LOS exceeds Hospital LOS | Value entered >365 days verify this is correct

Length of Stay Calculation Examples:

Example	Start Date	Start Time	Stop Date	Stop Time	LOS
A	01/01/17	0100	01/01/17	0400	1 day
B	01/01/17	0100	01/01/17	0400	1 day 2 episodes in the same day
	01/01/17	1600	01/01/17	1800	
C	01/01/17	0100	01/01/17	0400	2 days episodes on 2 separate calendar days
	01/02/17	1600	01/02/17	1800	
D	01/01/17	Unknown	01/01/17	1600	1 day
E	01/01/017	Unknown	01/02/17	1600	2 days episodes on 2 separate calendar days
	01/02/17	1800	01/02/17	Unknown	
F	01/01/17	0100	01/02/17	1900	3 days 2 episodes over 3 calendar days
	01/03/17	0030	01/03/17	2300	
G	01/01/17	0100	01/15/17	1700	15 days
H	Unknown	Unknown	01/02/17	1600	Unknown, Can't compute total
	01/03/17	0800	01/03/17	1700	

Notes:

- Values entered are recorded in full day increments
    - Any partial calendar days are counted as a full calendar day
- If the patient has multiple ICU episodes on the same calendar day, count that as one calendar day
- Field range 1day – 575 days
- Field should be "Not Known/Recorded" if any date are missing
- Field should be N/A if the patient had no ICU days according to the above definition

Total Ventilator Days (2 Pages)

TR26_58 Total Ventilator Days	
NTDS Name/Number:	O_02 Total Ventilator Days
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Cumulative amount of time spent on ventilator
Field Constraints:	Value entered is out of range | Total Vent days exceeds Hospital LOS | Value entered >365 days verify this is correct

Total Ventilator Days Calculation Examples:

Example	Start Date	Start Time	Stop Date	Stop Time	LOS
A	01/01/17	0100	01/01/17	0400	1 day
B	01/01/17	0100	01/01/17	0400	1 day 2 episodes in the same day
	01/01/17	1600	01/01/17	1800	
C	01/01/17	0100	01/01/17	0400	2 days episodes on 2 separate calendar days
	01/02/17	1600	01/02/17	1800	
D	01/01/17	Unknown	01/01/17	1600	1 day
E	01/01/017	Unknown	01/02/17	1600	2 days episodes on 2 separate calendar days
	01/02/17	1800	01/02/17	Unknown	
F	01/01/17	0100	01/02/17	1900	3 days 2 episodes over 3 calendar days
	01/03/17	0030	01/03/17	2300	
G	01/01/17	0100	01/15/17	1700	15 days
H	Unknown	Unknown	01/02/17	1600	Unknown: Can't compute total
	01/03/17	0800	01/03/17	1700	

Notes:

- Exclude mechanical ventilation time associated with OR procedures
- Non-invasive ventilator support (CPAP, BiPAP) should not be considered in the calculation of ventilator days
- Values entered are recorded in full day increments
  - Any partial calendar days are counted as a full calendar day
- If the patient has multiple ventilator episodes on the same calendar day, count that as one calendar day
- Field range 1day – 575 days
- Field should be "Not Known/Recorded" if any date are missing
- Field should be N/A if the patient had no ICU days according to the above definition

Hospital Discharge Date

TR25_34 Hospital Discharge Date	
NTDS Name/Number:	O_03 Hospital Discharge Date
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer	YYYY-MM-DD
Record Occurrence:	1:1
Data Entry:	Date
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Date order was written for patient to be discharged from the hospital
Field Constraints:	Date is not valid	Date out of range	Field must be N/A if ED disposition is 4,5,6,9,10, or 11	ED discharge date is earlier than DOB , EMS dispatch date, EMS arrival date, EMS departure date, ED/Hospital arrival date, ED discharge date	Hospital discharge date minus Injury date is > 365 days, verify this is correct

Notes:
- Auto generates Total Length of Hospital Stay
- If "Hospital Discharge Disposition" is "Deceased/Expired" then the "Hospital Discharge Date" is the patient's date of death as listed on their Death Certificate

Hospital Discharge Time

TR25_48 Hospital Discharge Time	
NTDS Name/Number:	O_04 Hospital Discharge Time
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer | HH:MM 24-hour time
Record Occurrence:	1:1
Data Entry:	Time
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Time the order was written for patient to be discharged from the hospital
Field Constraints:	Time is not valid | Time out of range | Hospital discharge time is earlier than EMS dispatch time, EMS arrival time, EMS departure time, ED/Hospital arrival time, ED discharge time | Field must be N/A if ED Disposition is 4,5,6,9,10, or 11

Notes:
- Auto generates Total length of hospital stay
- If "Hospital Discharge Disposition" is "Deceased/Expired" then the "Hospital Discharge Time" is the patient's time of death as listed on their Death Certificate

Hospital Discharge Disposition (2 Pages)

TR25_27 Hospital Discharge Disposition	
NTDS Name/Number:	O_05 Hospital Discharge Disposition
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option | Field must be N/A if ED Disposition is 4,5,6,9,10,or 11 | Field Cannot be "Not Known/Recorded" when Hospital Arrival Date and Hospital Discharge Date are N/A or "Not Known/Recorded"

Field Values:

1. Discharged/Transferred to a short-term general hospital for inpatient care
2. Discharged/Transferred to an Intermediate Care Facility (ICF)
3. Discharged/Transferred to home under care of organized home health service
4. Left against medical advice or discontinued care
5. Deceased/Expired
6. Discharged to home or self-care) Routine Discharge
7. Discharged/Transferred to Skilled Nursing Facility (SNF)
8. Discharged/Transferred to hospice care
10. Discharged/Transferred to court/law enforcement
11. Discharged/Transferred to inpatient rehab or designated unit
12. Discharged/Transferred to Long Term Care Hospital (LTCH)
13. Discharged/Transferred to psychiatric hospital or psychiatric unit
14. Discharged/Transferred to another type of institution not listed elsewhere

Notes:

- Field Values based on UB-04 Disposition Coding
- Some dispositions have been retired by the ACS, This is the cause of the numbering gaps
- "Home" refers to the patient's current place of residence (e.g. prison, child protective services, etc.)
- Field value should be 6 for disposition to any other non-medical facility
- Field value should be 14 for disposition to any other medical facility

Readmission/Related Admission

TR5_19 Readmission/Related Admission	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Yes / No
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option | Field cannot be N/A

Field Values:
1. Yes
2. No

Notes:
- Field should be "No" if this an initial patient encounter for this complaint
- Field should be "yes" if:
  - This admission is for the same injury/incident as the initial admission AND
  - The patient still meets NHTDS Inclusion Criteria at time of repeat presentation

DEATH INFORMATION

Date of Death

TR25_36 Date Death Occurred	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	Yes
Data Format:	Integer | YYYY-MM-DD
Record Occurrence:	1:1
Data Entry:	Date
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Date of death as listed on the patient's Death Certificate
Field Constraints:	Date is not valid | Date out of range | Field must be N/A if "ED Discharge Disposition" _OR_ "Hospital Discharge Disposition" are not "Deceased/Expired" | Date of Death is earlier than DOB , EMS dispatch date, EMS arrival date | Date of date minus Injury date is > 365 days, verify this is correct

Notes:

- Field is only completed if "ED Discharge Disposition" _OR_ "Hospital Discharge Disposition" are "Deceased/Expired"

Time of Death

TR25_36_1 Time of Death	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	Yes
Data Format:	Integer	HH:MM 24-hour time
Record Occurrence:	1:1
Data Entry:	Time
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Time of death as listed on the patient's Death Certificate
Field Constraints:	Time is not valid	Time out of range	Field must be N/A if "ED Discharge Disposition" _OR_ "Hospital Discharge Disposition" are not "Deceased/Expired"	Time of Death is earlier than EMS dispatch time, EMS arrival time.

Notes:
- Field is only completed if "ED Discharge Disposition" _OR_ "Hospital Discharge Disposition" are "Deceased/Expired"

Death Location

TR25_30 Death Location	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option | Field must be N/A if "ED Discharge Disposition" _OR_ "Hospital Discharge Disposition" are not "Deceased/Expired"

Field Values:
1. ICU
2. Operating Room/PACU
3. Floor
4. Emergency Department
5. Prior to Arrival
6. PICU

Notes:
- Record the location where the patient expired
- Field is only completed if "ED Discharge Disposition" _OR_ "Hospital Discharge Disposition" are "Deceased/Expired"

Death Circumstances

TR25_32 Death Circumstances	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:Many
Data Entry:	Multi Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values | Check all that apply
Field Constraints:	Value entered is not a valid menu option | Field must be N/A if "ED Discharge Disposition" _OR_ "Hospital Discharge Disposition" are not "Deceased/Expired" | Field must be "Not Known/Recorded" if applicable RV's are unknown

Field Values:

1. Brain Death
2. Brain Injury
3. Burns/Burn Shock
4. Cardiac Arrest due to Strangulation
5. Cardiovascular Failure
6. Drowning
7. Electrocution
8. Family Discontinued Life Support
9. Gastrointestinal
10. Heart Laceration
11. Liver Laceration
12. Multi-Organ Failure/Metabolic
13. Medical
14. Multisystem Trauma
15. Neurologic
16. Other
17. Pre-Existing Illness
18. Pulmonary Failure
19. Pulmonary Failure/Sepsis
20. Renal
21. Sepsis
22. Trauma: Shock
23. Trauma: Wound
24. Treatment Withheld

Notes:
- Record the circumstances surrounding the patient's death if known

Medical Examiner Notification

Pending at time of 2018 release	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	No
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Yes / No
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option | Field must be N/A if "ED Discharge Disposition" _OR_ "Hospital Discharge Disposition" are not "Deceased/Expired" | Field must be "Not Known/Recorded" if applicable RV's are unknown

Field Values:
1. Yes
2. No

Notes:
- Record if the Medical Examiner was notified of the patient's death
- Field is only completed if "ED Discharge Disposition" _OR_ "Hospital Discharge Disposition" are "Deceased/Expired"

Medical Examiner Investigation

Pending at time of 2018 Release	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	No
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Yes / No
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option | Field must be N/A if "ED Discharge Disposition" _OR_ "Hospital Discharge Disposition" are not "Deceased/Expired" | Field must be "Not Known/Recorded" if applicable RV's are unknown

Field Values:
1. Yes
2. No

Notes:
- Record if the Medical Examiner opened an investigation into the patient's death
- Field is only completed if "ED Discharge Disposition" _OR_ "Hospital Discharge Disposition" are "Deceased/Expired"

Autopsy

TR25_37 Autopsy Performed	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	No
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Yes / No
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option | Field must be N/A if "ED Discharge Disposition" _OR_ "Hospital Discharge Disposition" are not "Deceased/Expired" | Field must be "Not Known/Recorded" if applicable RV's are unknown

Field Values:
1. Yes
2. No

Notes:
- Record if an Autopsy was performed
- Field is only completed if "ED Discharge Disposition" _OR_ "Hospital Discharge Disposition" are "Deceased/Expired"

Organ Donation

TR25_29 Organ Donation	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	No
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Yes / No
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option | Field must be N/A if "ED Discharge Disposition" _OR_ "Hospital Discharge Disposition" are not "Deceased/Expired" | Field must be "Not Known/Recorded" if applicable RV's are unknown

Field Values:
1. Yes   2. No

Notes:
- Record if the patient's organs were donated
- Field is only completed if "ED Discharge Disposition" _OR_ "Hospital Discharge Disposition" are "Deceased/Expired"

Organs Donated

TR25_70 Organs Donated	
NTDS Name/Number:	N/A
NTDS Required:	No
NHTDS Required:	No
Data Format:	String
Record Occurrence:	1:Many
Data Entry:	Multi Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values	Check all that apply
Field Constraints:	Value entered is not a valid menu option	Field must be N/A if "ED Discharge Disposition" _OR_ "Hospital Discharge Disposition" are not "Deceased/Expired"

Field Values:
1. Adrenal Glands
2. All
3. Bone
4. Bone Marrow
5. Cartilage
6. Cornea
7. Donated Unknown
8. Fascia Lata
9. Heart
10. Ineligible to Donate
11. Kidney
12. Liver
13. Lung
14. Multi / Other
15. Nerves
16. Pancreas
17. Refused
18. Skin
19. Tendons
20. Valves

Notes:
- Record which organs were donated if known
- Field is only completed if "ED Discharge Disposition" _OR_ "Hospital Discharge Disposition" are "Deceased/Expired"

FINANCIAL INFORMATION

Primary Method of Payment

TR2_5 Primary Method of Payment	
NTDS Name/Number:	F_01 Primary Method of Payment
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values
Field Constraints:	Value entered is not a valid menu option | Field cannot be N/A

Field Values:
1. Medicaid
2. Not Billed (for any reason)
3. Self-Pay
4. Private/Commercial Insurance
6. Medicare
7. Other Government
10. Other

Notes:
- No Fault Automobile, Workers Compensation, & Blue Cross/Blue Shield are captured as "Private/Commercial Insurance"
  - Separate entries for these payers have been removed by ACS, resulting in the current numbering gaps

HOSPITAL COMPLICATIONS

Hospital Complications (2 Pages)

TR23_1 Complication	
NTDS Name/Number:	Q_01 Hospital Complications
NTDS Required:	Yes
NHTDS Required:	Yes (Not Required if Data Upload)
Data Format:	String
Record Occurrence:	1:Many
Data Entry:	Multi Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values	Check all that apply
Field Constraints:	Value entered is not a valid menu option

Field Values:
1. Other
4. Acute Kidney Injury
5. Acute Respiratory Distress Syndrome (ARDS)
8. Cardiac Arrest with CPR
12. Deep Surgical Site Infection
14. Deep Vein Thrombosis
15. Extremity Compartment Syndrome
18. Myocardial Infarction
19. Organ/Space Surgical Site Infection
21. Pulmonary Embolism
22. Stroke/CVA
25. Unplanned Intubation
29. Osteomyelitis
30. Unplanned Return to the OR
31. Unplanned Admission to the ICU
32. Severe Sepsis
33. Catheter-Associated Urinary Tract Infection (CAUTI)
34. Central Line-Associated Blood Stream Infection (CLABSI)
35. Ventilator-Associated Pneumonia (VAP)
36. Alcohol Withdrawal Syndrome
37. Pressure Ulcer
38. Superficial Incision Surgical Site Infection

Notes:

- Field should be N/A if patient had no complications
- Multiple complications have been removed by ACS, This is the cause of numbering gaps

TRAUMA QUALITY IMPROVEMENT PROGRAM (TQIP):

Measures for Processes of Care

The Fields in this Section Should be Collected and Transmitted by Level 1 and Level 2 TQIP Participating Centers Only. More Information about TQIP Programs is Available from ACS at: https://www.facs.org/quality-programs/trauma/tqip

Highest GCS Total

TR39_1 Highest GCS Total	
NTDS Name/Number:	PM_01 Highest GCS Total
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Highest total GCS within 24 hours after ED/Hospital Arrival to your facility
Field Constraints:	Value entered is outside the valid range 3 – 15	High GCS Total is < the "Highest GCS Motor" value	Field value N/A is dependent on AIS codes entered

Notes:
- **Collection Criteria:** Field is completed if the patient has at least one injury in AIS Head Region, Excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s), and/or scalp avulsion(s)
- Field requires the review of all possible data sources to obtain the highest GCS total for the patient
  - Highest GCS may occur after ED Discharge
  - Best obtained when sedatives or paralytics are withheld as part of "Sedation Holiday"
- If there is no numeric GCS score documented, but written documentation relays verbiage that closely or directly describes a level of functioning within the GCS scale (e.g. "the patient is alert, oriented, and acting appropriately") document GCS Score (e.g. GCS Total of 15)
  - Be sure to double check for contraindicating documentation (e.g. "patient was sedated, paralyzed, and intubated") prior to assigning score
- Field should be "N/A" for patients who do meet the above AIS Collection Criteria

Highest GCS Motor (2 Pages)

TR39_2 Highest GCS Motor	
NTDS Name/Number:	PM_02 Highest GCS Motor
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See Below for Specific Values	Highest GCS Motor score recorded within 24 hours after ED/Hospital Arrival at your facility
Field Constraints:	Value entered is not a valid menu option	Field value N/A is dependent on AIS codes entered

Field Values PEDIATRIC (Age ≤ 2yrs):
1. No motor response
2. Extension to pain
3. Flexion to pain
4. Withdrawal from pain
5. Localizing pain
6. Appropriate response to stimulation

Field Values ADULT (Age > 2yrs):
1. No motor response
2. Extension to pain
3. Flexion to pain
4. Withdrawal from pain
5. Localizing pain
6. Obeys Commands

Notes:
- **Collection Criteria:** Field is completed if the patient has at least one injury in AIS Head Region, Excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s), and/or scalp avulsion(s)
- Field requires the review of all possible data sources to obtain the highest GCS total for the patient
  - o Highest GCS may occur after ED Discharge
  - o Best obtained when sedatives or paralytics are withheld as part of "Sedation Holiday"

- If there is no numeric GCS score recorded, but written documentation relays verbiage that closely or directly describes a level of functioning within the GCS scale (e.g. "the patient withdraws from pain ") document GCS Score (e.g. GCS Motor of 4)
  - Be sure to double check for contraindicating documentation (e.g. "patient flexes to pain") prior to assigning score
- Field should be "N/A" for patients who do meet the above AIS Collection Criteria

Highest GCS Total Assessment Qualifiers (2 Pages)

TR18_21 GCS Qualifiers with Highest GCS Total	
NTDS Name/Number:	PM_03 GCS Assessment Qualifier Component of Highest GCS Total
NTDS Required:	Yes | *For TQIP Participating Facilities Only*
NHTDS Required:	Yes | *For TQIP Participating Facilities Only*
Data Format:	String
Record Occurrence:	1:Many
Data Entry:	Multi Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values | Check all that apply | Record the qualifier(s) which affected the Highest GCS score within 24 hours after the patient arrived at your facility
Field Constraints:	Value entered is not a valid menu option | Field value N/A is dependent on AIS codes entered

Field Values:
1. Patient chemically sedated or paralyzed
2. Obstruction to the patient's eye
3. Patient intubated
4. Valid GCS: patient was not sedated, or intubated, no obstruction to eye

Notes:
- **Collection Criteria:** Field is completed if the patient has at least one injury in AIS Head Region, Excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s), and/or scalp avulsion(s)
- Field requires the review of all possible data sources to obtain the highest GCS total for the patient
  - Highest GCS may occur after ED Discharge
- Identifies medical treatments administered to the patient that may affect the highest GCS score of the patient within 24 hours after arrival
  - Field does not apply to self-medication or intentional abuse of medications by patient (e.g. ETOH, prescriptions)

CONTINUED ON NEXT PAGE:

- If intubated patient was recently administered an agent which results in neuromuscular blockade the chemical sedation modifier should be selected
    - Neuromuscular blockade is normally induced following administration of agents like: Succinylcholine, Rocuronium, Vecuronium, & Pancuronium.
        - Other agents also induce blockade, please be sure to familiarize yourself with the agents that your facility uses
    - Each agent has a different duration of action, therefore the effect on the GCS depends on when the agent was administered

Initial ED/Hospital Pupillary Response

TR40_32 Initial ED/Hospital Pupillary Response	
NTDS Name/Number:	PM_04 Initial ED/Hospital Pupillary Response
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values	Physiological response of the pupil to light 30 minutes or less from ED/Hospital Arrival
Field Constraints:	Value entered is not a valid menu option	Field value N/A is dependent on AIS codes entered

Field Values:
1. Both Reactive
2. One Reactive
3. Neither Reactive

Notes:
- **Collection Criteria:** Field is completed if the patient has at least one injury in AIS Head Region, Excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s), and/or scalp avulsion(s)
- If there is listed field value documented, but written documentation relays verbiage that closely or directly describes a pupillary response (e.g. "PERRL or Pupils Equal, Round, Reactive to Light") enter appropriate field value (e.g. "1. Both Reactive")
  - Be sure to double check for contraindicating documentation (e.g. "pupils fixed and dilated") prior to assigning value
- If patient has a prosthetic eye assign field value "2. One Reactive"
- Field should be "N/A" for patients who do meet the above AIS Collection Criteria

Midline Shift

TR40_33 Midline Shift	
NTDS Name/Number:	PM_05 Midline Shift
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values	≥5mm shift of the brain past its center line within 24hours after time of injury
Field Constraints:	Value entered is not a valid menu option	Field value N/A is dependent on AIS codes entered

Field Values:
1. Yes
2. No
3. Not Imaged (e.g. CT Scan, MRI)

Notes:
- **Collection Criteria:** Field is completed if the patient has at least one injury in AIS Head Region, Excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s), and/or scalp avulsion(s)
- Documentation describing the presence of "Massive" midline shift (e.g. >5mm) still supports field value "1. Yes"
- Field should be "N/A" for patients who do meet the above AIS Collection Criteria
- Field value should be "Not Known/Recorded" if both the injury date and injury time are unknown
  - If the injury time is unknown *BUT* there is supporting documentation the clearly states the injury occurred within 24-hours of any CT measuring a >5mm shift; record field value "1. Yes" provided there is no contraindicating documentation
- Radiological and Surgical Reports from transferring facilities should be considered for this field

Cerebral Monitor – Type

TR39_4 Cerebral Monitor	
NTDS Name/Number:	PM_06 Cerebral Monitor
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	String
Record Occurrence:	1:Many
Data Entry:	Multi Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values	Check all that apply	Indicate all cerebral monitors that were placed
Field Constraints:	Value entered is not a valid menu option	Field value N/A is dependent on AIS codes entered

Field Values

1. Intraventricular Drain/Catheter (e.g. Ventriculostomy, External Ventricular Drain (EVD))
2. Intraparenchymal Pressure Monitor (e.g. Camino bolt, Subarachnoid bolt, Intraparenchymal catheter)
3. Intraparenchymal Oxygen Monitor (e.g. Licox)
4. Jugular Venous Bulb
5. None

Notes:

- **Collection Criteria:** Field is completed if the patient has at least one injury in AIS Head Region, Excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s), and/or scalp avulsion(s)
- Field refers to the insertion of an Intracranial Pressure (ICP) monitor (or other measures of cerebral perfusion) for the purposes of managing severe TBI
- Field should be "N/A" for patients who do meet the above AIS Collection Criteria
- Cerebral monitors placed at a referring facility are acceptable *IF* the monitor was used by the receiving facility to monitor the patient

Cerebral Monitor – Date

TR39_5 Cerebral Monitor Date	
NTDS Name/Number:	PM_07 Cerebral Monitor Date
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	Integer	YYYY-MM-DD
Record Occurrence:	1:1
Data Entry:	Date
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Date of first cerebral monitor placement
Field Constraints:	Date is not valid	Date out of range	Field Must be N/A if "Cerebral Monitor" field is "N/A, Not Known/Recorded, *OR* None"	Cerebral monitor date is earlier than ED/Hospital Arrival date (unless placed at referring facility)	Cerebral monitor date is later than Hospital Discharge Date

Notes:
- **Collection Criteria:** Field is completed if the patient has at least one injury in AIS Head Region, Excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s), and/or scalp avulsion(s)
- Field refers to the insertion of an Intracranial Pressure (ICP) monitor (or other measures of cerebral perfusion) for the purposes of managing severe TBI
- Cerebral monitors placed at a referring facility are acceptable *IF* the monitor was used by the receiving facility to monitor the patient

Cerebral Monitor – Time

TR39_6 Cerebral Monitor Time	
NTDS Name/Number:	PM_08 Cerebral Monitor Time
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	Integer	HH:MM 24-hour time
Record Occurrence:	1:1
Data Entry:	Time
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Time of first cerebral monitor placement
Field Constraints:	Time is not valid	Time out of range	Field Must be N/A if "Cerebral Monitor" field is "N/A, Not Known/Recorded, *OR* None"	Cerebral monitor time is earlier than ED/Hospital Arrival time (unless placed at referring facility)	Cerebral monitor time is later than Hospital Discharge time

Notes:
- **Collection Criteria:** Field is completed if the patient has at least one injury in AIS Head Region, Excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s), and/or scalp avulsion(s)
- Field refers to the insertion of an Intracranial Pressure (ICP) monitor (or other measures of cerebral perfusion) for the purposes of managing severe TBI
- Cerebral monitors placed at a referring facility are acceptable *IF* the monitor was used by the receiving facility to monitor the patient

Venous Thromboembolism (VTE) Prophylaxis – Type

TR40_1 VTE Prophylaxis Type	
NTDS Name/Number:	PM_09 Venous Thromboembolism Prophylaxis Type
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values	Type of the _FIRST_ dose of VTE Prophylaxis administered at your facility
Field Constraints:	Value entered is not a valid menu option	Field cannot be N/A

Field Values:
1. Heparin
5. None
6. LMWH (Dalteparin, Enoxaparin, etc.)
7. Direct Thrombin Inhibitor (Dabigatran, etc.)
8. Xa Inhibitor (Rivaroxaban, etc.)
9. Coumadin
10. Other

Notes:
- **Collection Criteria:** Collect on all patients
- Field value may be "5. None" if the patient received no VTE Prophylaxis OR the first dose was administered post discharge order date and time
- Several VTE Prophylaxis types have been retired by the ACS, This is the cause of the numbering gaps

Venous Thromboembolism (VTE) Prophylaxis – Date

TR40_2 VTE Prophylaxis Date	
NTDS Name/Number:	PM_10 Venous Thromboembolism Prophylaxis Date
NTDS Required:	Yes | *For TQIP Participating Facilities Only*
NHTDS Required:	Yes | *For TQIP Participating Facilities Only*
Data Format:	Integer | YYYY-MM-DD
Record Occurrence:	1:1
Data Entry:	Date
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Date of the _FIRST_ dose of VTE Prophylaxis administered at your facility
Field Constraints:	Date is not valid | Date out of range | Field Must be N/A if "VTE Prophylaxis" field is "Not Known/Recorded, _OR_ None" | VTE Prophylaxis date is earlier than ED/Hospital Arrival date | VTE Prophylaxis date is later than Hospital Discharge Date

Notes:
- **Collection Criteria:** Collect on all patients

Venous Thromboembolism (VTE) Prophylaxis – Time

TR40_3 VTE Prophylaxis Time	
NTDS Name/Number:	PM_11 Venous Thromboembolism Prophylaxis Time
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	Integer	HH:MM 24-hour time
Record Occurrence:	1:1
Data Entry:	Time
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Time of the _FIRST_ dose of VTE Prophylaxis administered at your facility
Field Constraints:	Time is not valid	Time out of range	Field Must be N/A if "VTE Prophylaxis" field is "Not Known/Recorded, _OR_ None"	VTE Prophylaxis time is earlier than ED/Hospital Arrival time	VTE Prophylaxis time is later than Hospital Discharge time

Notes:
- **Collection Criteria:** Collect on all patients

Transfusion Blood – 4 Hours

TR40_4 Transfusion Blood (4 Hours)	
NTDS Name/Number:	PM_12 Transfusion Blood (4 Hours)
NTDS Required:	Yes | *For TQIP Participating Facilities Only*
NHTDS Required:	Yes | *For TQIP Participating Facilities Only*
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Volume of packed Red Blood Cells (PRBC) (measured in Units or CC/mL) transfused in the first 4 hours after ED/Hospital Arrival
Field Constraints:	Value entered is invalid | Value entered exceeds 80units *OR* 40,000 CC/mL; please verify this is correct

Notes:
- **Collection Criteria:** Collect on all patients
- Field refers to the total amount of transfused PRBC within the first 4 hours after patient arrival at your facility
- If no blood is transfused, enter field value zero (0)
- If PRBC are transfusing upon patient arrival at your facility:
    - If reporting in *UNITS:* Count as 1unit
    - If reporting in *CC/mL:* record the number of CC/mL transfused in your facility
- Must also Complete the "Transfusion Blood Measurement *AND* Transfusion Blood Conversion" fields

Transfusion Blood – 24 Hours

TR40_8 Transfusion Blood (24 Hours)	
NTDS Name/Number:	PM_13 Transfusion Blood (24 Hours)
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Volume of packed Red Blood Cells (PRBC) (measured in Units or CC/mL) transfused in the first 24 hours after ED/Hospital Arrival
Field Constraints:	Value entered is invalid	Value entered exceeds 120units OR 60,000 CC/mL; please verify this is correct	Field must be N/A when Transfusion Blood (4 Hours) is 0	Field cannot be less than Transfusion Blood (4 Hours) value

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival
- Field refers to the total amount of transfused PRBC within the first 24 hours after patient arrival at your facility
- If no blood is transfused, enter field value "N/A"
- If PRBC are transfusing upon patient arrival at your facility:
    - If reporting in *UNITS:* Count as 1unit
    - If reporting in *CC/mL:* record the number of CC/mL transfused in your facility
- Must also Complete the "Transfusion Blood Measurement *AND* Transfusion Blood Conversion" fields

Transfusion Blood – Measurement

TR40_23 Transfusion Blood Measurement	
NTDS Name/Number:	PM_14 Transfusion Blood Measurement
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values	The unit of measure used to document the patient's blood transfusion
Field Constraints:	Value is not a value menu option	Field must be N/A for patients who do not meet Collection Criteria <u>OR</u> patients who had no blood transfused

Field Values:
1. Units
2. CC/mL

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival
- Must also complete the "Transfusion Blood Conversion" field

Transfusion Blood – Conversion

TR40_23 Transfusion Blood Conversion	
NTDS Name/Number:	PM_15 Transfusion Blood Conversion
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Enter CC's/mL's constituting a "unit" for blood transfusions at your facility
Field Constraints:	Value entered is invalid	Value exceeds 500mL please verify this is correct	Value exceeds max of 1000mL	Field must be N/A for patients who do not meet Collection Criteria *OR* patients who had no blood transfused *OR* if your facility already reports transfused blood in CC/mL

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival
- Field refers to the quantity of CCs or mL's which constitutes a "Unit" of blood for transfusion at your facility (e.g. 500mL = 1 unit)
- Must also complete the "Transfusion Blood Measurement" field

Transfusion Plasma – 4 Hours

TR40_5 Transfusion Plasma (4 Hours)	
NTDS Name/Number:	PM_16 Transfusion Plasma (4 Hours)
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Volume of fresh frozen plasma (FFP) or thawed plasma (measured in Units or CC/mL) transfused in the first 4 hours after ED/Hospital Arrival
Field Constraints:	Value entered is invalid	Value entered exceeds 80units <u>*OR*</u> 40,000 CC/mL; please verify this is correct	Field must be N/A for patients who do not meet Collection Criteria <u>*OR*</u> patients who had no blood/plasma transfused

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival
- Field refers to the total amount of transfused FFP or thawed plasma within the first 4 hours after patient arrival at your facility
- If FFP is transfusing upon patient arrival at your facility:
  - If reporting in <u>*UNITS:*</u> Count as 1unit
  - If reporting in <u>*CC/mL:*</u> record the number of CC/mL transfused in your facility
- Must also Complete the "Transfusion Plasma Measurement <u>*AND*</u> Transfusion Plasma Conversion" fields

Transfusion Plasma – 24 Hours

TR40_9 Transfusion Plasma (24 Hours)	
NTDS Name/Number:	PM_17 Transfusion Plasma (24 Hours)
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Volume of fresh frozen plasma (FFP) or thawed plasma (measured in Units or CC/mL) transfused in the first 24 hours after ED/Hospital Arrival
Field Constraints:	Value entered is invalid	Value entered exceeds 120units OR 60,000 CC/mL; please verify this is correct	Field cannot be less than Transfusion Plasma (4 Hours) value	Field must be N/A for patients who do not meet Collection Criteria _OR_ patients who had no blood/plasma transfused

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival
- Field refers to the total amount of transfused FFP or thawed plasma within the first 24 hours after patient arrival at your facility
- If FFP is transfusing upon patient arrival at your facility:
  - If reporting in _UNITS:_ Count as 1unit
  - If reporting in _CC/mL:_ record the number of CC/mL transfused in your facility
- Must also Complete the "Transfusion Plasma Measurement _AND_ Transfusion Plasma Conversion" fields

Transfusion Plasma – Measurement

TR40_25 Transfusion Plasma Measurement	
NTDS Name/Number:	PM_18 Transfusion Plasma Measurement
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values	The unit of measure used to document the patient's plasma transfusion
Field Constraints:	Value is not a value menu option	Field must be N/A for patients who do not meet Collection Criteria <u>OR</u> patients who had no blood/plasma transfused

Field Values:
1. Units
2. CC/mL

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival
- Must also Complete the "Transfusion Plasma Conversion" field

Transfusion Plasma – Conversion

TR40_26 Transfusion Plasma Conversion	
NTDS Name/Number:	PM_19 Transfusion Plasma Conversion
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Enter CC's/mL's constituting a "unit" for Plasma transfusions at your facility
Field Constraints:	Value entered is invalid	Value exceeds 500mL please verify this is correct	Value exceeds max of 1000mL	Field must be N/A for patients who do not meet Collection Criteria *OR* patients who had no blood/plasma transfused *OR* if your facility already reports transfused blood/plasma in CC/mL

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival
- Field refers to the quantity of CCs or mL's which constitutes a "Unit" of plasma for transfusion at your facility (e.g. 500mL = 1 unit)
- Must also complete the "Transfusion plasma Measurement" field

Transfusion Platelets – 4 Hours

TR40_6 Transfusion Platelets (4 Hours)	
NTDS Name/Number:	PM_20 Transfusion Platelets (4 Hours)
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Volume of platelets (measured in Units or CC/mL) transfused in the first 4 hours after ED/Hospital Arrival
Field Constraints:	Value entered is invalid	Value entered exceeds 80units *OR* 40,000 CC/mL; please verify this is correct	Field must be N/A for patients who do not meet Collection Criteria *OR* patients who had no blood/platelets transfused

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival
- Field refers to the total amount of transfused platelets within the first 4 hours after patient arrival at your facility
- If platelets are transfusing upon patient arrival at your facility:
    - If reporting in *UNITS:* Count as 1unit
    - If reporting in *CC/mL:* record the number of CC/mL transfused in your facility
- Must also Complete the "Transfusion Platelets Measurement *AND* Transfusion Platelets Conversion" fields

Transfusion Platelets – 24 Hours

TR40_10 Transfusion Platelets (24 Hours)	
NTDS Name/Number:	PM_21 Transfusion Platelets (24 Hours)
NTDS Required:	Yes | *For TQIP Participating Facilities Only*
NHTDS Required:	Yes | *For TQIP Participating Facilities Only*
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Volume of platelets (measured in Units or CC/mL) transfused in the first 24 hours after ED/Hospital Arrival
Field Constraints:	Value entered is invalid | Value entered exceeds 120units OR 60,000 CC/mL; please verify this is correct | Field cannot be less than Transfusion Platelets (4 Hours) value | Field must be N/A for patients who do not meet Collection Criteria *OR* patients who had no blood/platelets transfused

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival
- Field refers to the total amount of transfused platelets within the first 24 hours after patient arrival at your facility
- If platelets are transfusing upon patient arrival at your facility:
    - If reporting in *UNITS:* Count as 1unit
    - If reporting in *CC/mL:* record the number of CC/mL transfused in your facility
- Must also Complete the "Transfusion Platelets Measurement *AND* Transfusion Platelets Conversion" fields

Transfusion Platelets – Measurement

TR40_27 Transfusion Platelets Measurement	
NTDS Name/Number:	PM_22 Transfusion Platelets Measurement
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values	The unit of measure used to document the patient's platelet transfusion
Field Constraints:	Value is not a value menu option	Field must be N/A for patients who do not meet Collection Criteria <u>OR</u> patients who had no blood/platelets transfused

Field Values:
1. Units
2. CC/mL

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival
- Must also Complete the "Transfusion Platelet Conversion" field

Transfusion Platelets – Conversion

TR40_28 Transfusion Platelets Conversion	
NTDS Name/Number:	PM_23 Transfusion Platelets Conversion
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Enter CC's/mL's constituting a "unit" for Platelet transfusions at your facility
Field Constraints:	Value entered is invalid	Value exceeds 500mL please verify this is correct	Value exceeds max of 1000mL	Field must be N/A for patients who do not meet Collection Criteria *OR* patients who had no blood/platelets transfused *OR* if your facility already reports transfused blood/Cryoprecipitate in CC/mL

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital Arriva
- Field refers to the quantity of CCs or mL's which constitutes a "Unit" of platelets for transfusion at your facility (e.g. 500mL = 1 unit)
- Must also complete the "Transfusion Platelet Measurement" field

Cryoprecipitate – 4 Hours

TR40_7 Cryoprecipitate (4 Hours)	
NTDS Name/Number:	PM_24 Cryoprecipitate (4 Hours)
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Volume of Cryoprecipitate (measured in Units or CC/mL) transfused in the first 4 hours after ED/Hospital Arrival
Field Constraints:	Value entered is invalid	Value entered exceeds 80units *OR* 40,000 CC/mL; please verify this is correct	Field must be N/A for patients who do not meet Collection Criteria *OR* patients who had no blood/Cryoprecipitate transfused

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival
- Field refers to the total volume of solution enriched with clotting factors transfused within the first 4 hours after patient arrival at your facility
- If Cryoprecipitate is transfusing upon patient arrival at your facility:
    - If reporting in *UNITS:* Count as 1unit
    - If reporting in *CC/mL:* record the number of CC/mL transfused in your facility
- Must also Complete the "Cryoprecipitate Measurement *AND* Cryoprecipitate Platelets Conversion" fields

Cryoprecipitate – 24 Hours

TR40_11 Cryoprecipitate (24 Hours)	
NTDS Name/Number:	PM_25 Cryoprecipitate (24 Hours)
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Volume of Cryoprecipitate (measured in Units or CC/mL) transfused in the first 24 hours after ED/Hospital Arrival
Field Constraints:	Value entered is invalid	Value entered exceeds 120units OR 60,000 CC/mL; please verify this is correct	Field cannot be less than Cryoprecipitate (4 Hours) value	Field must be N/A for patients who do not meet Collection Criteria *OR* patients who had no blood/Cryoprecipitate transfused

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival
- Field refers to the total volume of solution enriched with clotting factors transfused within the first 4 hours after patient arrival at your facility
- If Cryoprecipitate is transfusing upon patient arrival at your facility:
  - If reporting in *UNITS:* Count as 1unit
  - If reporting in *CC/mL:* record the number of CC/mL transfused in your facility
- Must also Complete the "Cryoprecipitate Measurement *AND* Cryoprecipitate Platelets Conversion" fields

Cryoprecipitate – Measurement

TR40_29 Cryoprecipitate Measurement	
NTDS Name/Number:	PM_26 Cryoprecipitate Measurement
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values	The unit of measure used to document the volume of Cryoprecipitate administered
Field Constraints:	Value is not a value menu option	Field must be N/A for patients who do not meet Collection Criteria *OR* patients who had no blood/Cryoprecipitate transfused

Field Values:
1. Units
2. CC/mL

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival
- Must also Complete the "Cryoprecipitate Conversion" field

Cryoprecipitate – Conversion

TR40_30 Cryoprecipitate Conversion	
NTDS Name/Number:	PM_27 Cryoprecipitate Conversion
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Enter CC's/mL's constituting a "unit" for Cryoprecipitate transfusion at your facility
Field Constraints:	Value entered is invalid	Value exceeds 500mL please verify this is correct	Value exceeds max of 1000mL	Field must be N/A for patients who do not meet Collection Criteria *OR* patients who had no blood/Cryoprecipitate transfused *OR* if your facility already reports transfused blood/Cryoprecipitate in CC/mL

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival
- Field refers to the quantity of CCs or mL's which constitutes a "Unit" of platelets for transfusion at your facility (e.g. 500mL = 1 unit)
- Must also complete the "Transfusion Platelet Measurement" field

Lowest ED/Hospital Systolic Blood Pressure

TR40_22 Lowest Systolic Blood Pressure	
NTDS Name/Number:	PM_28 Lowest ED/Hospital Blood Pressure
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	Integer
Record Occurrence:	1:1
Data Entry:	Free Text
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Lowest sustained SBP in the ED/Hospital within the first hour of patient arrival
Field Constraints:	Value entered is invalid	Max 3 characters	SBP exceeds max of 300 mmHg	Field must be N/A for patients who do not meet Collection Criteria <u>OR</u> patients who had no blood transfused

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival
- Field refers to the lowest sustained(>5minutes) SBP in the hour after the patient arrived at your facility
- Recorded value must be without the assistance of CPR or Mechanical Chest Compressions
  - For these patients record the value when obtained when compressions are paused

Angiography – Type

TR40_12 Angiography	
NTDS Name/Number:	PM_29 Angiography
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values | Select the type of the *FIRST* interventional angiogram within 24 hours of patient arrival
Field Constraints:	Value is not a valid menu option | Field must be N/A for patients who do not meet Collection Criteria *OR* patients who had no blood transfused

Field Values:
1. None
2. Angiogram Only
3. Angiogram with Embolization

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival
- Field refers to the type of the interventional angiogram the patient underwent within 24 hours of arrival at your facility
- Field excludes CTA

Angiography – Embolization Site

TR40_18 Embolization Site	
NTDS Name/Number:	PM_30 Embolization Site
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values | Check all that apply | Select the organ or site of embolization for hemorrhage control
Field Constraints:	Value is not a valid menu option | Field must be N/A for patients who do not meet Collection Criteria _OR_ patients who underwent angiogram only

Field Values:
1. Liver
2. Spleen
3. Kidneys
4. Pelvic (iliac, gluteal, obturator)
5. Retroperitoneum (lumbar, sacral)
6. Peripheral Vascular (neck, extremities)
7. Aorta (thoracic or abdominal)
8. Other

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival

Angiography – Date

TR40_13 Angiography Date	
NTDS Name/Number:	PM_31 Angiography Date
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	Integer	YYYY-MM-DD
Record Occurrence:	1:1
Data Entry:	Date
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Date the angiogram with or without embolization was performed
Field Constraints:	Date is not valid	Date out of range	Field Must be N/A if "Angiography-type" field is "N/A <u>OR</u> None" <u>OR</u> if the patient does not meet Collection Criteria	Angiography date is earlier than ED/Hospital Arrival date	Angiography date is later than Hospital Discharge Date	Angiography date/time minus ED/Hospital Arrive date/time is greater than 24 hours

Notes:

- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival

Angiography – Time

TR40_14 Angiography Time	
NTDS Name/Number:	PM_32 Angiography Time
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	Integer	HH:MM 24-hour time
Record Occurrence:	1:1
Data Entry:	Time
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Time the angiogram with or without embolization was performed
Field Constraints:	Time is not valid	Time out of range	Field Must be N/A if "Angiography-type" field is "N/A _OR_ None" _OR_ if the patient does not meet Collection Criteria	Angiography time is earlier than ED/Hospital Arrival time	Angiography time is later than Hospital Discharge time	Angiography date/time minus ED/Hospital Arrive date/time is greater than 24 hours

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival

Surgery for Hemorrhage Control – Type

TR40_19 Surgery for Hemorrhage Control Type	
NTDS Name/Number:	PM_33 Surgery for Hemorrhage Control Type
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Single Select
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See below for specific values | Select the type of surgery for hemorrhage control within the first 24 hours of patient arrival
Field Constraints:	Value is not a valid menu option | Field must be N/A for patients who do not meet Collection Criteria

Field Values

1. None
2. Laparotomy
3. Thoracotomy
4. Sternotomy
5. Extremity
6. Neck
7. Mangled Extremity or Traumatic Amputation
8. Other Skin or Soft Tissue

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival
- If it is unclear if surgery was for hemorrhage control, consult the relevant surgeon
- Field value "None" is used if surgical procedure used for hemorrhage control is not a listed field value

Surgery for Hemorrhage Control – Date

TR40_20 Surgery for Hemorrhage Control Date	
NTDS Name/Number:	PM_34 Surgery for Hemorrhage Control Date
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	Integer	YYYY-MM-DD
Record Occurrence:	1:1
Data Entry:	Date
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Date the Surgery for Hemorrhage Control was performed
Field Constraints:	Date is not valid	Date out of range	Field Must be N/A if "Surgery for Hemorrhage Control type" field is "N/A _OR_ None" _OR_ if the patient does not meet collection criteria	Surgery for hemorrhage control date is earlier than ED/Hospital arrival date	Surgery for hemorrhage control date is later than Hospital discharge date

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival

Surgery for Hemorrhage Control – Time

TR40_21 Surgery for Hemorrhage Control Time	
NTDS Name/Number:	PM_34 Surgery for Hemorrhage Control Time
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	Integer	HH:MM 24-hour time
Record Occurrence:	1:1
Data Entry:	Time
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Time the Surgery for Hemorrhage Control was performed
Field Constraints:	Time is not valid	Time out of range	Field Must be N/A if "Surgery for Hemorrhage Control type" field is "N/A _OR_ None" _OR_ if the patient does not meet collection criteria	Surgery for hemorrhage control time is earlier than ED/Hospital Arrival time	Surgery for hemorrhage control time is later than Hospital Discharge time

Notes:
- **Collection Criteria:** Collect on all patients with transfused PRBC within the first 4 hours after ED/Hospital arrival

Withdrawal of Life Supporting Treatment

TR40_15 Withdrawal of Life Supporting Treatment	
NTDS Name/Number:	PM_36 Withdrawal of Life Supporting Treatment
NTDS Required:	Yes
NHTDS Required:	Yes
Data Format:	String
Record Occurrence:	1:1
Data Entry:	Yes/No
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	See Below for specific Values | Was treatment withdrawn based on a decision to either remove or withhold further life supporting interventions
Field Constraints:	Value entered is not a valid menu option | Field cannot be N/A

Notes:
- **Collection Criteria:** Collect on all patients
- This decision must be documented in the patient's medical record and is often but not always associated with a discussion with the patient's legal next of kin
- DNR orders are not a requirement and are not the same as a withdrawal of life supporting treatment
- Excludes the discontinuation of CPR, and involves typically involves prior planning
- A note to limit escalation of treatment qualifies as withdrawal of life supporting treatment, these interventions include:
  - Ventilator Support (with or without extubation)
  - Dialysis or other forms of Renal support
  - Administration of medications to support blood pressure or Cardiac functions
  - Specific Surgical, Interventional, or Radiological procedures (e.g. Decompressive craniectomy, operation for hemorrhage control, angiography)
    - This definition provides equal weight to the withdrawal of interventions already in place (e.g. extubation) and/or the decision not to proceed with a life-supporting intervention (e.g. intubation)

Withdrawal of Life Supporting Treatment– Date

TR40_16 Withdrawal of Life Supporting Treatment Date	
NTDS Name/Number:	PM_37 Withdrawal of Life Supporting Treatment Date
NTDS Required:	Yes	*For TQIP Participating Facilities Only*
NHTDS Required:	Yes	*For TQIP Participating Facilities Only*
Data Format:	Integer	YYYY-MM-DD
Record Occurrence:	1:1
Data Entry:	Date
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Date Withdrawal of Life Supporting Treatment occurred
Field Constraints:	Date is not valid	Date out of range	Field Must be N/A if "Withdrawal of Life Supporting Treatment is "No	Withdrawal of Life Supporting Treatment date is earlier than ED/Hospital arrival date	Withdrawal of Life Supporting Treatment date is later than Hospital discharge date

Notes:
- **Collection Criteria:** Collect on all patients
- Record the date the first of any existing life supporting intervention(s) are removes (e.g. extubation)
    - If no interventions are in place, document the date/time the decision not to proceed with a life-supporting intervention occurred

Withdrawal of Life Supporting Treatment – Time

TR40_21 Withdrawal of Life Supporting Treatment Time	
NTDS Name/Number:	PM_37 Withdrawal of Life Supporting Treatment Time
NTDS Required:	Yes | *For TQIP Participating Facilities Only*
NHTDS Required:	Yes | *For TQIP Participating Facilities Only*
Data Format:	Integer | HH:MM 24-hour time
Record Occurrence:	1:1
Data Entry:	Time
Accepts CNV:	Yes
Accepts "Blank":	No
Field Values:	Time Withdrawal of Life Supporting Treatment occurred
Field Constraints:	Time is not valid | Time out of range | Field Must be N/A if "Withdrawal of Life Supporting Treatment is "No | Withdrawal of Life Supporting Treatment time is earlier than ED/Hospital arrival time | Withdrawal of Life Supporting Treatment time is later than Hospital discharge time

Notes:
- **Collection Criteria:** Collect on all patients
- Record the time the first of any existing life supporting intervention(s) are removes (e.g. extubation)
    - If no interventions are in place, document the date/time the decision not to proceed with a life-supporting intervention occurred

NHTDS SUPPLEMENTAL INFORMATION

Appendix A: New Hampshire Trauma Data Standard Revision Cycle

MONTH & YEAR:	MEETINGS:	REVISION ACTIONS:
OCTOBER 2017:	TMRC MEETING	Draft 2018 Dictionary presented to TRMC for final review/revision
NOVEMBER 2017:		Draft 2018 Dictionary Revised
DECEMBER 2017:	TMRC MEETING	Revised 2018 Dictionary Presented to TRMC for Final Approval
JANUARY 2018:		2018 Dictionary Released to Registrars for Use
FEBRUARY 2018:	TMRC MEETING	Open Call for 2019 Dictionary Revisions made at TRMC Meeting
MARCH 2018:		2019 Dictionary Revisions Gathered
APRIL 2018:	TMRC MEETING	2019 Dictionary Revisions Gathered
MAY 2018:		2019 Dictionary Revisions Gathered
JUNE 2018:	TMRC MEETING	Call for 2019 Dictionary Revisions Closed at TRMC Meeting
JULY 2018:	2019 NHTDS Workshop	2019 Dictionary Workgroup Meets to Discuss & Approve Revisions | Data Fields Revised
AUGUST 2018:	TMRC MEETING Draft 2019 NTDS Released	Revised Data Fields are Presented to TRMC for Adoption into 2019 NHTDS
SEPTEMBER 2018:		Draft 2019 Dictionary is completed with revised fields and new/revised NTDS 2019 fields
OCTOBER 2018:	TMRC MEETING	Draft 2019 Dictionary presented to TRMC for final review/revision
NOVEMBER 2018:		Draft 2019 Dictionary Revised
DECEMBER 2018:	TMRC MEETING	Revised 2019 Dictionary Presented to TRMC for Final Approval
JANUARY 2019:		2019 Dictionary Released to Registrars for Use

Appendix B: Address Field FIPS Codes

State FIPS Codes:

State	Code	State	Code
Alabama	01	Nebraska	31
Alaska	02	Nevada	32
Arizona	04	New Hampshire	33
Arkansas	05	New Jersey	34
California	06	New Mexico	35
Colorado	08	New York	36
Connecticut	09	North Carolina	37
Delaware	10	North Dakota	38
District of Columbia	11	Ohio	39
Florida	12	Oklahoma	40
Georgia	13	Oregon	41
Hawaii	15	Pennsylvania	42
Idaho	16	Rhode Island	44
Illinois	17	South Carolina	45
Indiana	18	South Dakota	46
Iowa	19	Tennessee	47
Kansas	20	Texas	48
Kentucky	21	Utah	49
Louisiana	22	Vermont	50
Maine	23	Virginia	51
Maryland	24	Washington	53
Massachusetts	25	West Virginia	54
Michigan	26	Wisconsin	55
Minnesota	27	Wyoming	56
Mississippi	28		
Missouri	29		
Montana	30		

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County FIPS Codes:

	County	Code		County	Code
NEW HAMPSHIRE	Belknap	001	**MASSACHUSETTS**	Barnstable	001
	Carroll	003		Berkshire	003
	Cheshire	005		Bristol	005
	Coos	007		Dukes	007
	Grafton	009		Essex	009
	Hillsborough	011		Franklin	011
	Merrimack	013		Hampden	013
	Rockingham	015		Hampshire	015
	Strafford	017		Middlesex	017
	Sullivan	019		Nantucket	019
				Norfolk	021
				Plymouth	023
				Suffolk	025
				Worcester	027

	County	Code		County	Code
MAINE	Androscoggin	001	**VERMONT**	Addison	001
	Aroostook	003		Bennington	003
	Cumberland	005		Caledonia	005
	Franklin	007		Chittenden	007
	Hancock	009		Essex	009
	Kennebec	011		Franklin	011
	Knox	013		Grand Isle	013
	Lincoln	015		Lamoille	015
	Oxford	017		Orange	017
	Penobscot	019		Orleans	019
	Piscataquis	021		Rutland	021
	Sagadahoc	023		Washington	023
	Somerset	025		Windham	025
	Waldo	027		Windsor	027
	Washington	029			
	York	031			

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Appendix C: Glossary of Co-Morbid Conditions

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REGISTRARS TAKE NOTE:

The information presented in this appendix represents the most current information available at the time of this dictionary's release. It is the responsibility of the registrar and reporting agency to ensure that the information reported to the NHTR is based on the most current definitions from the professional bodies listed next to the applicable condition. Additionally, for any of these conditions to be considered co-morbid, their presence must be documented in the patient's medical record.

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</table>

Advanced Directive Liming Care: The patient had a written request limiting life sustaining therapy, or similar advanced directive, present prior to arrival at your facility

Alcohol Use Disorder: (Consistent with American Psychiatric Association (APA) DSM 5, 2013) Diagnosis of alcohol use disorder present prior to injury

Angina Pectoris: (Consistent with American Heart Association (AHA) May, 2015) Chest pain or discomfort due to Coronary Heart Disease, present prior to injury. Usually causes uncomfortable pressure, fullness, squeezing, or pain in the center of the chest. Patient may also feel discomfort in the neck, jaw, shoulder, back, or arm. Symptoms may be different in Women than men.

Anticoagulant Therapy: Documentation of the administration of medication that interferes with blood clotting, prior to injury. <u>Exclude</u> patients on chronic Aspirin therapy. Examples below:

Anticoagulants	Antiplatelet Agents	Thrombin Inhibitors	Thrombolytic Agents
Fondaparinux	Tirofiban	Bevalirudin	Alteplase
Warfarin	Dipyridamole	Argatroban	Reteplase
Dalteparin	Anagrelide	Lepirudin, Hirudin	Tenactrplase
Lovenox	Eptifibatide	Drotrecogin Alpha	Kabinase
Pentasaccaride	Dipyridamole	Dabigatran	tPA
APC	Clopidogrel		
Ximelagatran	Cilostazol		
Pentoxifylline	Abciximab		
Rivaroxaban	Ticlopidine		
Apixaban	Prasugrel		
Heparin	Ticagrelor		

Attention Deficit Disorder / Attention Deficit Hyperactivity Disorder (ADD / ADHD): (Consistent with American Psychiatric Association (APA) DSM 5, 2013) A disorder involving inattention, hyperactivity, or impulsivity requiring medication for treatment. Present prior to ED/Hospital arrival.

Bleeding Disorder: (Consistent with the American Society of Hematology, 2015) A constellation of conditions that result when the blood cannot clot properly. Present prior to injury. (e.g. Hemophilia, Factor V Leiden)

Cerebrovascular Accident (CVA): Prior to injury; patient has a history of embolic, thrombotic or hemorrhagic cerebrovascular accident with persistent residual motor, sensory, or cognitive dysfunction (e.g. hemiplegia, hemiparesis, aphasia, sensor deficit, impaired memory).

Chronic Obstructive Pulmonary Disease (COPD): (Consistent with World Health Organization (WHO) 2015) Lung ailment characterized by a persistent blockage of airflow from the lungs. Present prior to injury. Includes a constellation of symptoms including:
- Chronic bronchodilator therapy with oral or inhaled agents
- Functional disability (e.g. dyspnea, inability to perform ADLs)
- PFT or predicted Forced Expiratory Volume 1second (FEV1) of < 75%
- Previous hospitalization for treatment of COPD

Does not include patients whose only pulmonary disease is acute asthma and/or diffuse interstitial fibrosis or sarcoidosis

Chronic Renal Failure: Condition of kidney dysfunction prior to injury that was requiring periodic peritoneal dialysis, hemodialysis, hemofiltration, or hemodiafiltration. May be secondary to Diabetes, Chronic Hypertension or other medical conditions; consult the patient's medical record.

Cirrhosis: Condition present prior to injury that may be also documented as "End Stage Liver Disease". Consult diagnostic imaging or laparotomy/laparoscopy reports for presence of cirrhosis. Additionally, consider cirrhosis present if:
- Ascites with notation of Liver Disease
- Esophageal Varices (Current or Previous Diagnosis)
- Gastric Varices (Current or Previous Diagnosis)
- Portal Hypertension
- Previous Hepatic Encephalopathy

Congenital Anomalies: Presence of Cardiac, Pulmonary, Body Wall, CNS/Spinal, GI, Renal, Orthopedic, or Metabolic anomaly prior to injury

Congestive Heart Failure (CHF): The inability of the heart to pump a sufficient quantity of blood to meet the metabolic needs of the body or the ability to do so only at an increased ventricular filling pressure present prior to injury. To be considered medical record should reflect diagnosis of Congestive Heart Failure, CHF, or Pulmonary Edema with onset of increasing symptoms in the 30 days preceding injury. Common manifestations include:
- Abnormal limitation in physical exertion due to dyspnea or fatigue
- Cardiomegaly
- Increased Jugular Venous Pressure
- Orthopnea (difficulty breathing while lying flat)
- Paroxysmal Nocturnal Dyspnea (awakening from sleep with dyspnea)
- Pulmonary Rales on Physical Examination
- Pulmonary Vascular Engorgement

Current Smoker: A patient who reports smoking cigarettes every day or some days within the 12 months preceding injury. <u>Exclude</u> patients who smoke cigars, pipes, or use smokeless tobacco (e.g. chewing tobacco, snuff, electric cigarettes)

Currently Receiving Chemotherapy for Cancer: A patient who, prior to injury, was receiving any oral or parenteral chemotherapeutic agent for malignancies of:
- Breast
- Colon
- Gastrointestinal Solid Tumors
- Head and Neck
- Lung
- Lymphatic and Hematopoietic Malignancies
    - Leukemia
    - Lymphoma
    - Multiple Myeloma

Dementia: A loss of mental ability which affects a person's ability to perform ADL's. The result of many medical conditions, including Alzheimer's disease, Vascular conditions (Vascular Dementia) etc.

Diabetes Mellitus: A condition present prior to injury which required the use of parenteral insulin and/or oral hypoglycemic agent to regulate blood glucose levels,

Disseminated Cancer: Patients who prior to injury have diagnosis of cancer that has spread to one or more sites in addition to the primary site AND in whom the presence of multiple metastases indicates Cancer in widespread.

Consider if Cancer is Described as:	Common Sites of Metastases Include:
"Carcinomatosis"	Abdomen
"Diffuse"	Bone
"Widely Metastatic"	Brain
"Widespread"	Liver
	Lung
	Meninges
	Peritoneum
	Pleura

Functionally Dependent Health Status: Patients who, prior to injury, as a result of cognitive or physical limitations relating to pre-existing medical condition(s) were partly or completely dependent upon equipment, devices, or another person to complete some or all activities of daily living (ADLs). ADL's include: Bathing, Dressing, Feeding, Toileting and Walking.

Hypertension: A condition, present prior to injury, characterized by persistent elevated blood pressure requiring medical treatment

Mental or Personality Disorder: (Consistent with American Psychiatric Association (APA) DSM 5, 2013) The pre-injury presence of any of the following conditions:

- Adjustment Disorder
- Antisocial Personality Disorder
- Bipolar Disorders
- Borderline Personality Disorder
- Depressive Disorders
- Posttraumatic Stress Disorder
- Schizophrenia

Myocardial Infarction (MI): History of MI in the six months preceding injury.

Peripheral Vascular Disease (PAD): (Consistent with Centers for Disease Control and Prevention (CDC) 2014 Fact Sheet) A condition in which atherosclerotic (fatty plaque) blockages reduce or prevent blood flow through the arteries which serve the arms or legs. Most common in the legs, but may also affect the arms. Present prior to injury.

Prematurity: Any infant born:

- Prior to 37 weeks from the first day of the mother's last menstrual period **AND**
- History of bronchopulmonary dysplasia **OR**
- Ventilator support for >7days after birth

Steroid Use: Patients who, in the 30 days preceding injury, required the regular administration of oral or parenteral corticosteroid medications for the treatment of a chronic medical condition. Exclude topical corticosteroids applied to the skin and corticosteroids administered by inhalation or rectally.

Corticosteroid Medications Include:	Common Conditions Include:
Prednisone	COPD
Dexamethasone	Asthma
	Rheumatologic Disease
	Rheumatoid Arthritis
	Inflammatory Bowel Disease

Substance Abuse Disorder: (Consistent with American Psychiatric Association (APA) DSM 5, 2013) Diagnosis of substance use disorder present prior to injury

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Appendix D: Glossary of Hospital Complications

Acute Kidney Injury (AKI) Stage 3: (Consistent with Kidney Disease Improving Global Outcome (KDIGO) March 2012 Guideline) An abrupt decrease in kidney function that occurred during the patient's initial stay at your hospital. If the patient or family refuses treatment (e.g. dialysis) the condition is still considered present if a combination of oliguria and creatinine are present. Exclude patients with renal failure that were requiring periodic renal replacement therapy (e.g. Peritoneal dialysis, hemodialysis, hemofiltration, or hemodiafiltration) prior to injury.

KIDGO (Stage 3) Table:
- (SCr) 3 times baseline **OR**
- Increase in SCr to ≥ 4.0mg/dL (≥353.6μmol/L) **OR**
- Initiation or Renal replacement therapy (or in patients <18 years) Decrease in eGFR to <35mL/min per $1.73m^2$ **OR**
- Urine output <0.3mL/kg/hr for ≥ 24 hours **OR**
- Anuria for ≥ 12 hours

Acute Respiratory Distress Syndrome (ARDS): (Consistent with the New Berlin definition, 2012) Respiratory distress with the following symptomology occurring during the initial stay at your facility.

Timing: Within one week of known clinical insult *OR* new/worsening respiratory symptoms
Chest Imaging: Bilateral opacities that are not full explained by effusion, lobar/lung collapse, or nodules
Origin of Edema: Respiratory failure not full explained by cardiac failure or fluid overload. If no risk factors present, consider objective assessment (e.g echocardiography) to exclude hydrostatic edema
Oxygenation: (at minimum) $200<PaO_2/FiO_2 ≤300$ with PEEP or CPAP $≥ 5cmH_2O$

Alcohol Withdrawal Syndrome: (Consistent with World Health Organization (WHO) 2016 definition of Alcohol Withdrawal Syndrome) Condition characterized by sweating, anxiety, agitation, depression, nausea, and malaise. Onset 6 - 48 hours after cessation of alcohol consumption; when uncomplicated symptoms abate 2 - 5 days after onset. Complications include tonic-clinic seizures that may progress to delirium tremens. Onset must have occurred during the initial stay at your facility.

Cardiac Arrest with CPR: The sudden cessation of cardiac activity after arrival at your facility and during the initial stay at your facility; Characterized by the patient becoming unresponsive without discernable signs of breathing or signs of circulation. Without rapid intervention, condition quickly progresses to sudden death.

Exclude patients who are receiving CPR on arrival at your facility

Include patients who have had an episode of cardiac arrest evaluated by hospital personnel and received compressions or defibrillation or cardioversion or cardiac pacing to restore circulation

Catheter-Associated Urinary Tract Infection (CAUTI): (Consistent with the Centers for Disease Control and Prevention (CDC) January 2016 definition of CAUTI) The development of UTI during the initial stay at your facility where:

- An indwelling urinary was in place for > 2 calendar day on the date of the UTI diagnosis with the day of catheter placement being day 1, *AND*
- An indwelling urinary catheter was in place on the date of the UTI diagnosis or the day before

If an indwelling urinary catheter was in place for >2 days and then removed, the date of the UTI diagnosis bust be the day of catheter removal or the day following day for the UTI to be catheter associated.

CDC CAUTI Symptomatic-UTI (SUTI)
Criteria 1a:
Patient must meet 1, 2, *AND* 3 below

1. Patient had an indwelling urinary catheter that had been in place for > 2 calendar days on the date of the UTI diagnosis (Day of catheter placement = Day 1) *AND*
   a. Was present for any portion of the calendar day on the date of the event *OR*
   b. Was removed the day before the date of UTI diagnosis
2. Patient has *at least one* of the following S/S:
   a. Fever (>38.0°C)
   b. Suprapubic Tenderness
   c. Costovertebral Angle Pain or Tenderness
   d. Urinary Urgency
   e. Urinary Frequency
   f. Dysuria
3. Patient has urine culture with no more than two species of organisms identified, at least one of which is a bacterium of ≥10^5 CFU/mL

CDC CAUTI Symptomatic UTI (SUTI)
Criteria 2:
Patient must meet 1, 2, AND 3 below

1. Patient is ≤1 year of age (with or without indwelling urinary catheter)
2. Patient has at least one of the following S/S:
   a. Fever (>38.0°C)
   b. Hypothermia (<36.0°C)
   c. Apnea
   d. Bradycardia
   e. Lethargy
   f. Vomiting
   g. Suprapubic Tenderness
3. Patient has urine culture with no more than two species of organisms identified, at least one of which is a bacterium of ≥10^5 CFU/mL

Central Line-Associated Bloodstream Infection (CLABSI): (Consistent with the Centers for Disease Control and Prevention (CDC) January 2016 definition of CLABSI) A laboratory-confirmed bloodstream infection (LCBI) where:

- A central line (CL) or umbilical catheter (UC), was in place for >2 calendar days on the date of the LCBI diagnosis with the day of device placement being day 1, ***AND***
- The line was also in place on the date of the LCBI diagnosis or the day before

If a CL or UC was in place for >2 calendar days and then removed, the date of LCBI diagnosis must be the day of device removal or the next day for the LCBI to be Central Line-associated.

If the patient is admitted or transferred into a facility with an implanted central line (port) device in place, and the implanted port is the patient's only central line, day of first access in an inpatient location is considered Day 1. "Access" is defined as placement, infusion or withdrawal through the line. These lines are eligible for CLABSI once they are accessed until they are either discontinued or the day after patient discharge (as per the Transfer Rule) De-access of a port does not result in the patient's removal from CLABSI surveillance.

CDC LCBI Criteria 1:

1. Patient has a recognized pathogen identified from one or more blood specimens by a culture or non-culture based microbiologic testing method which is performed for the purposed of clinical diagnosis or treatment (e.g. NOT active surveillance culture testing) ***AND***
2. Organism(s) identified in the blood is/are not related to another infection at another site ***OR***

CDC LCBI Criteria 2:

1. The patient has *at least one* of the following S/S
   a. Fever (>38.0°C)
   b. Chills
   c. Hypotension ***AND***
2. Organism(s) identified in the blood is/are not related to another infection at another site ***AND***
3. The same common commensal is identified from two or more blood specimens drawn on separate occasions by a by a culture or non-culture based microbiologic testing method which is performed for the purposed of clinical diagnosis or treatment (e.g. NOT active surveillance culture testing).
   a. Criteria elements must occur within a seven-day Infection window, this includes the collection date of the positive blood and three calendar days pre and post collection date ***OR***

CDC LCBI Criteria 3:

1. Patient is ≤ 1 year of age and has *at least one* of the following S/S:
   a. Fever (>38.0◦C)
   b. Hypothermia (<36.0◦C)
   c. Apnea
   d. Bradycardia ***AND***
2. Organism(s) identified in the blood is/are not related to another infection at another site ***AND***

3. The same common commensal is identified from two or more blood specimens drawn on separate occasions by a by a culture or non-culture based microbiologic testing method which is performed for the purposed of clinical diagnosis or treatment (e.g. NOT active surveillance culture testing).
    a. Criteria elements must occur within a seven-day Infection window, this includes the collection date of the positive blood and three calendar days pre and post collection date

Deep Surgical Site Infection: (Consistent with the Centers for Disease Control and Prevention (CDC) January 2016 definition of SSI) An infection of the surgical site which meets the following criteria:

1. Infection occurs within 30 or 90 days post National Healthcare Safety Network (NHSN) defined operative procedure (see list below, *NOTE:* Day 1= Procedure Date) *AND*
2. Infection involves deep soft tissues of the Incision (e.g. Fascia and Muscle layers) *AND*
3. The patient has *at least one* of the following:
    a. Purulent drainage from the deep incision
    b. A deep incision that:
        i. Spontaneously dehisces
        ii. Is deliberately opened or aspirated by a surgeon, attending physician or other designee *AND* an organism is identified by a by a culture or non-culture based microbiologic testing method which is performed for the purposed of clinical diagnosis or treatment (e.g. NOT active surveillance culture testing) *OR* Culture/Non-culture based microbiologic testing methods are not performed *AND*
        iii. The patient has *at least one* of the following S/S:
            1. Fever (>38.0∘C)
            2. Localized pain or tenderness
        iv. A culture or non-culture based test that has a negative finding does not meet this criteria
    c. An abscess or other evidence of infection involving the deep incision that is detected on gross anatomical or histopathologic exam or imaging tests

NOTE: There are to specific types of deep incisional SSIs:
1. *Deep Incisional Primary (DIP)* – a deep incisional SSI that is identified in a primary incision in a patient that has had an operation with one or more incisions (e.g. C-section incisions or chest incision for CBGB)
2. *Deep Incisional Secondary (DIS)* – a deep incisional SSI that is identified in the secondary incision in a patient that has had an operation with more than one incision (e.g. donor site incision for CBGB)

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Table 2: Surveillance Period for Deep Incisional or Organ/Space SSI Following Selected NHSN Operative Procedure Categories (*NOTE:* Day 1= Procedure Date)

30 – Day SSI Surveillance			
Code	**Operative Procedure**	**Code**	**Operative Procedure**
AAA	Abdominal Aortic Aneurysm Repair	LAM	Laminectomy
AMP	Limb Amputation	LTP	Liver Transplant
APPY	Appendix Surgery	NECK	Neck Surgery
AVSD	Shunt for Dialysis	NEPH	Kidney Surgery
BILI	Bile Duct, Liver, or Pancreatic Surgery	OVRY	Ovarian Surgery
CEA	Carotid Endaterectomy	PRST	Prostate Surgery
CHOL	Gallbladder Surgery	REC	Rectal Surgery
COLO	Colon Surgery	SB	Small Bowel Surgery
CSEC	Cesarean Section	SPLE	Spleen Surgery
GAST	Gastric Surgery	THOR	Thoracic Surgery
HTP	Heart Transplant	THUR	Thyroid and/or Parathyroid Surgery
HYST	Abdominal Hysterectomy	VHYS	Vaginal Hysterectomy
KTP	Kidney Transplant	XLAP	Exploratory Laparotomy
90 – Day SSI Surveillance			
Code	**Operative Procedure**		
BRST	Breast Surgery		
CARD	Cardiac Surgery		
CBGB	Coronary Artery Bypass Graft with both Chest and Donor Site Incisions		
CBGC	Coronary Artery Bypass Graft with Chest Incision Only		
CRAN	Craniotomy		
FUSN	Spinal Fusion		
FX	Open Reduction of Fracture		
HER	Herniorrhaphy		
HPRO	Hip Prosthesis		
KPRO	Knee Prosthesis		
PACE	Pacemaker Surgery		
PVBY	Peripheral Vascular Bypass Surgery		
VSHN	Ventricular Shunt		

Deep Vein Thrombosis (DVT): The formation, development, or existence of a blood clot or thrombus within the vascular system, which may be coupled with inflammation. The patient must be treated with anticoagulation therapy and/or placement of a vena cava filter or clipping of the vena cava. Diagnosis may be confirmed by a venogram, ultrasound, or CT and must have occurred during the patient's initial stay at your facility.

Extremity Compartment Syndrome: A condition not present at admission, in which there is documentation of tense muscular compartments of an extremity through clinical assessment or direct measurement of intra-compartmental pressure requiring fasciotomy. Compartment syndromes usually involve the leg, but can also involve the forearm, arm, thigh and shoulder. Must have occurred during the patient's initial stay at your facility and should only be documented as a complication if it is originally missed leading to late recognition, a need for late intervention and has threatened limb viability.

Myocardial Infarction (MI): An acute Myocardial Infarction must be noted with documentation of any of the following:
1. Documentation of ECG Changes Indicative of MI
    a. ST Elevation >1 mm in to or more contiguous leads
    b. New onset Left Bundle Branch Block (LBBB)
    c. New Q-Wave in two or more contiguous leads **_OR_**
2. New elevation in troponin greater than three times upper level of the reference range in the setting of suspected Myocardial ischemia **_OR_**
3. Physician Diagnosis of Myocardial Infarction

Organ/Space Surgical Site Infection: (Consistent with the Centers for Disease Control and Prevention (CDC) January 2016 definition of SSI) An infection of the surgical site which meets the following criteria:
1. Infection occurs within 30 or 90 days post National Healthcare Safety Network (NHSN) defined operative procedure (see list below, _NOTE:_ Day 1= Procedure Date) **_AND_**
2. Infection involves any part of the body deeper than the fascia or muscle layers that is opened or manipulated during the operative procedure **_AND_**
3. The patient has _at least one_ of the following:
    a. Purulent drainage from a drain that is placed into the organ/space (e.g. closed suction drainage, open drain, T-Tube drainage, CT Guided drainage)
    b. Organisms are identified from an aseptically-obtained fluid or tissue in the organ/space by a culture or non-culture based microbiologic testing method which is performed for the purposed of clinical diagnosis or treatment (e.g. NOT active surveillance culture testing)
    c. An abscess or other evidence of infection that is detected on gross anatomical or histopathologic exam or imaging test **_AND_**
        i. Meets _at least one_ of the specific organ/space infection site criteria listed in Table 3 below

Table 2: Surveillance Period for Deep Incisional or Organ/Space SSI Following Selected NHSN Operative Procedure Categories (_NOTE:_ Day 1= Procedure Date)

30 – Day SSI Surveillance			
Code	**Operative Procedure**	**Code**	**Operative Procedure**
AAA	Abdominal Aortic Aneurysm Repair	LAM	Laminectomy
AMP	Limb Amputation	LTP	Liver Transplant
APPY	Appendix Surgery	NECK	Neck Surgery
AVSD	Shunt for Dialysis	NEPH	Kidney Surgery
BILI	Bile Duct, Liver, or Pancreatic Surgery	OVRY	Ovarian Surgery
CEA	Carotid Endaterectomy	PRST	Prostate Surgery
CHOL	Gallbladder Surgery	REC	Rectal Surgery
COLO	Colon Surgery	SB	Small Bowel Surgery
CSEC	Cesarean Section	SPLE	Spleen Surgery
GAST	Gastric Surgery	THOR	Thoracic Surgery
HTP	Heart Transplant	THUR	Thyroid and/or Parathyroid Surgery
HYST	Abdominal Hysterectomy	VHYS	Vaginal Hysterectomy
KTP	Kidney Transplant	XLAP	Exploratory Laparotomy

90 – Day SSI Surveillance	
Code	**Operative Procedure**
BRST	Breast Surgery
CARD	Cardiac Surgery
CBGB	Coronary Artery Bypass Graft with both Chest and Donor Site Incisions
CBGC	Coronary Artery Bypass Graft with Chest Incision Only
CRAN	Craniotomy
FUSN	Spinal Fusion
FX	Open Reduction of Fracture
HER	Herniorrhaphy
HPRO	Hip Prosthesis
KPRO	Knee Prosthesis
PACE	Pacemaker Surgery
PVBY	Peripheral Vascular Bypass Surgery
VSHN	Ventricular Shunt

Table 3: Specific Sites of an Organ/Space SSI

Code	Site	Code	Site
BONE	Osteomyelitis	LUNG	Other Infections of Respiratory Tract
BRST	Breast Abscess, Mastitis	MED	Mediastinitis
CARD	Myocarditis OR Pericarditis	MEN	Meningitis or Ventriculitis
DISC	Disc Space	ORAL	Oral Cavity (mouth, tongue, gums)
EAR	Ear, Mastoid	OREP	Other Infections of the male/female Reproductive Tract
EMET	Endometritis	PJI	Periprosthetic Joint Infection
ENDO	Endocarditis	SA	Spinal Abscess without Meningitis
EYE	Eye, other than conjunctivitis	SINU	Sinusitis
GIT	GI Tract	UR	Upper Respiratory Tract
HEP	Hepatitis	USI	Urinary System Infection
IAB	Intraabdominal, Not otherwise specified	VASC	Arterial or Venous Infection
IC	Intracranial, brain abscess or dura	VCUF	Vaginal Cuff
JNT	Joint or Bursa		

Osteomyelitis: (Consistent with the Centers for Disease Control and Prevention (CDC) January 2016 definition of Bone and Joint Infection) An infection of the bone which meets _at least one_ of the following criteria:

1. The patient has organisims identified from bone by culture or non-culture based microbiologic testing method which is performed for the purposes of clinical diagnosis and treatment (e.g. NOT active surveillance culture/testing)
2. Patient has evidence of osteomyelitis on gross anatomic or histopathologic exam
3. Patient has _at least two_ of the following (without other recognized cause):
    a. Fever (>38°C)
    b. Swelling
    c. Pain or Tenderness
    d. Heat
    e. Drainage

In addition to the criteria above the patient must have AT LEAST ONE of the following:

1. Organisms identified from blood by culture or non-culture based microbiologic testing methods which is performed for purposes of clinical diagnosis and treatment (e.g. NOT active surveillance culture/testing) in a patient with imaging test evidence suggestive of infection (e.g. X-ray, CT scan, MRI, Radiolabel scan) which if equivocal is supported by clinical correlation (i.e. physician documentation of antimicrobial treatment for osteomyelitis)
2. Imaging test evidence suggestive of infection (e.g. X-ray, CT scan, MRI, Radiolabel scan) which if equivocal is supported by clinical correlation (i.e. physician documentation of antimicrobial treatment for osteomyelitis)

Pulmonary Embolism: The lodging of a blood clot in a pulmonary artery with subsequent obstruction of blood supply to lung parenchyma which occurred during the patient's initial stay at your facility. Clots may originate from the deep veins of the leg or the pelvic venous system. Consider PE present if the patient has:

- V-Q scan interpreted as "high probability of Pulmonary Embolism"
- Positive Pulmonary Arteriogram
- Positive CT angiogram
- Diagnosis of PE in the patient's medical record

Pressure Ulcer: (Consistent with the National Pressure Ulcer Advisory Panel (NPUAP) 2014) A Localized Injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear. A number of contributing or confounding factors are associated with pressure ulcers; the significance of these factors in yet to be elucidated. See NPUAP Stages II-IV, Unstageable/Unclassified and deep tissue injury. Documented occurrence must have happened during the patient's initial stay at your facility.

Severe Sepsis: (Consistent with the American College of Chest Physicians and the Society of Critical Care Medicine, October, 2010) A diagnosis of Sepsis meeting the following criteria occurring during the patient's initial stay at your facility.

- Severe Sepsis: Sepsis *plus* end organ dysfunction, hypotension or hypoperfusion to one or more organs
- Septic Shock: Sepsis with persisting arterial hypotension or hypoperfusion despite adequate fluid resuscitation

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Stroke/CVA: A focal or global neurological deficit of rapid onset NOT present at time of admission. The patient must have *at least one* of the following S/S:

- Change in level of consciousness
- Hemiplegia
- Hemiparesis
- Numbness or sensory loss affecting one side of the body
- Dysphasia or Aphasia
- Hemianopia
- Amaurosis Fugax
- Other neurologic S/S consistent with stroke

AND

- Duration of Neurological Deficit ≥ 24hours

OR

- Duration of deficit <24 hours if
    a. Neuroimaging (MRI, CT, Cerebral Angiography) documents a new hemorrhage or infarct consistent with stroke
    b. Therapeutic interventions were performed for stroke
    c. Neurologic interventions resulted in death

AND

- No other readily identifiable non-stroke causes (e.g. progression of existing traumatic brain injury, seizure, tumor, metabolic or pharmacologic etiologies) are identified

AND

- Diagnosis is confirmed by neurology or neurosurgical specialist or neuroimaging procedure (MRI, CT, angiography) or Lumbar Puncture (CSF demonstrating intracranial hemorrhage that was not present on admission)

Although the neurologic deficit must not be present on admission, Risk factors predisposing the patient to stroke (e.g. blunt cerebrovascular injury, dysrhythmia) may be present on admission.

Superficial Incisional Surgical Site Infection: (Consistent with the Centers for Disease Control and Prevention (CDC) January 2016 definition of SSI) An infection of the surgical site occurring during the patient's initial stay at your facility which meets the following criteria:

- Infection occurs within 30 days after any NHSN operative procedure *NOTE:* Day 1= Procedure Date

AND

- Involves *ONLY* the skin and subcutaneous tissue of the incision

AND

- The patient has *at least one* of the following:
    a. Purulent drainage from the superficial incision
    b. Organisms are identified from an aseptically-obtained specimen from the superficial incision by a culture or non-culture based microbiologic testing method which is performed for the purposed of clinical diagnosis or treatment (e.g. NOT active surveillance culture testing)
    c. Superficial incision is deliberately opened by a surgeon, attending physician, or other designee and culture or non-culture based testing is not performed *AND* the patient has *at least one* of the following S/S:
        - Pain or tenderness
        - Localized swelling
        - Erythema or Heat
    d. Diagnosis of Superficial SSI by the Surgeon or Attending physician

NOTE: There are to specific types of superficial incisional SSIs:
1. *Superficial Incisional Primary (SIP)* – a superficial incisional SSI that is identified the primary incision in a patient that has had an operation with one or more incisions (e.g. C-section incisions or chest incision for CBGB)
2. *Superficial Incisional Secondary (SIS)* – a superficial incisional SSI that is identified in the secondary incision in a patient that has had an operation with more than one incision (e.g. donor site incision for CBGB)

Unplanned Admission to the ICU: Patients admitted to the ICU after initial transfer to the floor, and/or patients with an unplanned return to the ICU after initial ICU discharge. Must have occurred during the patient's initial stay at your facility. Exclude: patients in which ICU care was required for postoperative care of a planned surgical procedure.

Unplanned Intubation: Patient requires placement of an Endotracheal Tube and mechanical or assisted ventilation because of the onset of respiratory or cardiac failure manifested by severe respiratory distress, hypoxia, hypercarbia, or resp. acidosis.
- For patients intubated in the field, emergency department, or for surgery; unplanned intubation occurs if the patient requires re intubation >24hours after extubation

Unplanned Return to the Operating Room: The unplanned return of the patient to the Operating Room after initial operative management for a similar or related previous procedure. Return must occur during the patient's initial stay at your facility.

Ventilator-Associated Pneumonia (VAP): (Consistent with the Centers for Disease Control and Prevention (CDC) January 2016 definition of VAP) A pneumonia occurring during the patient's initial stay at your facility where
- The patient is on mechanical ventilation for >2 days on the date of pneumonia diagnosis when the date of ventilator initiation = Day 1 *AND*
- The ventilator was in place on the date of diagnosis or the day before. If the patient is admitted or transferred into your facility on a ventilator the day of admission is considered Day 1

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VAP Algorithm (*PNU2 Bacterial or Filamentous Fungal Pathogens*)**:**

Imaging Test Evidence	Signs / Symptoms	Laboratory
Two or more serial chest imaging test results with <u>at least one</u> of the following: New or Progressive **AND** persistent infiltrate Consolidation Cavitation Pneumatoceles, In infants ≤ 1 year old <u>NOTE:</u> In patients **WITHOUT** underlying pulmonary or cardiac disease (e.g., respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), **ONE DEFINITIVE** Chest Imaging test result is acceptable	<u>At least one</u> of the following: Fever (>38°C or >100.4°F) Leukopenia (≤4000 WBC/MM^3) or Leukocytosis (≥ 12,000 WBC/MM^3) For adults ≥ 70 years old, altered mental status without other recognized cause **AND** <u>at least two</u> of the following: New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements New onset or worsening cough or dyspnea, or tachypnea Rales of bronchial breath sounds Worsening gas exchange (e.g. O$_2$ saturations (e.g. PaO$_2$/FiO$_2$ ≤240), increased oxygen requirements, or increased ventilator demand)	<u>At least one</u> of the following: Organism identified from blood Organism identified from pleural fluid Positive quantitative culture from minimally-contaminated LRT specimen (e.g. BAL or protected specimen brushing) ≥5% BAL-obtained calls contained intracellular bacteria on direct microscopic exam (e.g. Gram's stain) Positive quantitative culture of lung tissue <u>OR:</u> Histopathologic exam shows <u>at least one</u> of the following evidences of pneumonia: Abscess formation or foci of consolidation with intense PMN accumulation in bronchioles and Alveoli Evidence of lung parenchyma invasion by fungal hyphae or pseudohyphae

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VAP Algorithm (*PNU2 Viral, Legionella, and Other Bacterial Pneumonias*)**:**

Imaging Test Evidence	Signs / Symptoms	Laboratory
Two or more serial chest imaging test results with *at least one* of the following: New or Progressive **AND** persistent infiltrate Consolidation Cavitation Pneumatoceles, In infants ≤ 1 year old *NOTE:* In patients **WITHOUT** underlying pulmonary or cardiac disease (e.g., respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), **ONE DEFINITIVE** Chest Imaging test result is acceptable	*At least one* of the following: Fever (>38°C or >100.4°F) Leukopenia (≤4000 WBC/MM^3) or Leukocytosis (≥ 12,000 WBC/MM^3) For adults ≥ 70 years old, altered mental status without other recognized cause **AND** *at least one* of the following: New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements New onset or worsening cough or dyspnea, or tachypnea Rales or bronchial breath sounds Worsening gas exchange (e.g. O$_2$ saturations (e.g. PaO$_2$/FiO$_2$ ≤240), increased oxygen requirements, or increased ventilator demand)	*At least one* of the following: Virus, Bordetella, Legionella, Chlamydia, or mycoplasma identified from respiratory secretions or tissue by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (e.g. NOT active surveillance culture/testing) Fourfold rise in paired sera(IgG) for pathogen (e.g. influenza viruses, Chlamydia) Fourfold rise in legionella pneumophila serogroup 1 antibody titer to ≥1:128 in paired acute and convalescent sera by indirect IFA Detection of L. Pneumophila serogroup 1 Antigens in urine by RIA or EIA

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VAP Algorithm *(PNU3 Immunocompromised Patients):*

Imaging Test Evidence	Signs / Symptoms	Laboratory
Two or more serial chest imaging test results with *at least one* of the following: New or Progressive **AND** persistent infiltrate Consolidation Cavitation Pneumatoceles, In infants ≤ 1 year old *NOTE:* In patients **WITHOUT** underlying pulmonary or cardiac disease (e.g., respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), **ONE DEFINITIVE** Chest Imaging test result is acceptable	Patient who is immunocompromised and has *at least one* of the following: Fever (>38°C or >100.4°F) For adults ≥ 70 years old, altered mental status without other recognized cause New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements New onset or worsening cough or dyspnea, or tachypnea Rales or bronchial breath sounds Worsening gas exchange (e.g. O_2 saturations (e.g. PaO_2/FiO_2 ≤240), increased oxygen requirements, or increased ventilator demand) Hemoptysis Pleuritic chest pain	*At least one* of the following: Identification of Matching *Candida* spp. from blood and sputum, endotracheal aspirate, BAL or protected specimen brushing Evidence of fungi from minimally-contaminated LRT specimen (e.g. BAL or protected specimen brushing) from one of the following: • Direct microscopic exam • Positive culture of fungi • Non-culture diagnostic laboratory test Any of the following from: **Laboratory Criteria defined under PNU2**

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VAP Algorithm *ALTERNATE CRITERIA (PNU1) for Infants ≤1 year old*:

Imaging Test Evidence	Signs / Symptoms & Laboratory
Two or more serial chest imaging test results with <u>at least one</u> of the following: New or Progressive <u>**AND**</u> persistent infiltrate Consolidation Cavitation Pneumatoceles, In infants ≤ 1 year old <u>*NOTE:*</u> In patients **WITHOUT** underlying pulmonary or cardiac disease (e.g., respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), **ONE DEFINITIVE** Chest Imaging test result is acceptable	Worsening gas exchange (e.g. O_2 saturations (e.g. $PaO_2/FiO_2 \leq 240$), increased oxygen requirements, or increased ventilator demand) <u>**AND**</u> <u>*At least three*</u> of the following: Temperature Instability Leukopenia (≤ 4000 WBC/MM^3) or Leukocytosis ($\geq 12,000$ WBC/MM^3) New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements Apnea, Tachypnea, nasal flaring with retraction of chest wall, or nasal flaring with grunting Wheezing, rales, rhonchi Cough Bradycardia (<100beats/min) or Tachycardia (>170beats/min)

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VAP Algorithm *ALTERNATE CRITERIA (PNU1) for Children >1 yr. old or ≤ 12 yrs. old*

Imaging Test Evidence	Signs / Symptoms & Laboratory
Two or more serial chest imaging test results with *at least one* of the following: New or Progressive **AND** persistent infiltrate Consolidation Cavitation Pneumatoceles, In infants ≤ 1 year old *NOTE:* In patients **WITHOUT** underlying pulmonary or cardiac disease (e.g., respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), **ONE DEFINITIVE** Chest Imaging test result is acceptable	*At least three* of the following: Temperature Instability Leukopenia (≤4000 WBC/MM^3) or Leukocytosis (≥ 12,000 WBC/MM^3) New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements Apnea, Tachypnea, nasal flaring with retraction of chest wall, or nasal flaring with grunting Wheezing, rales, rhonchi Cough Bradycardia (<100beats/min) or Tachycardia (>170beats/min)

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